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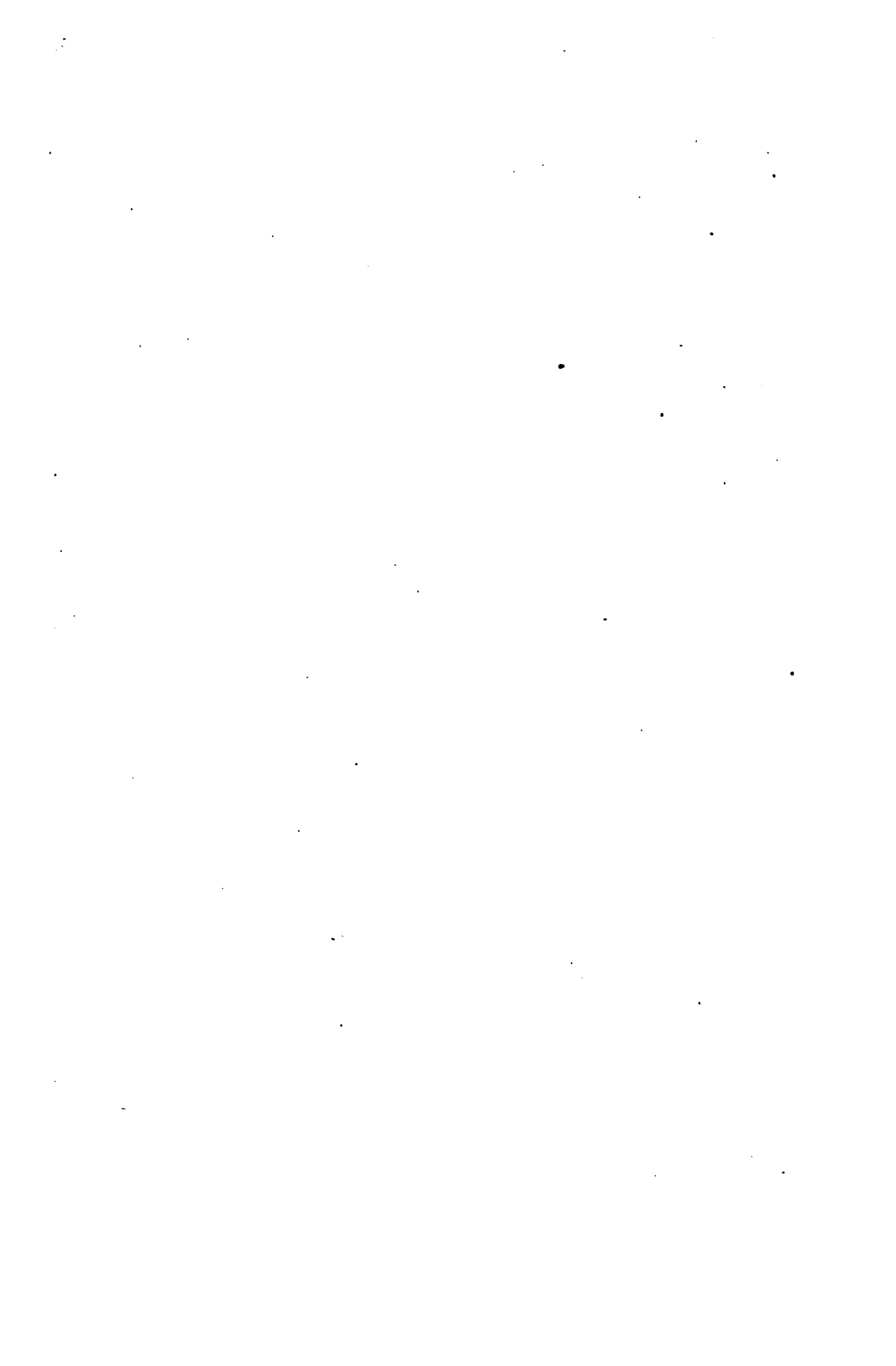
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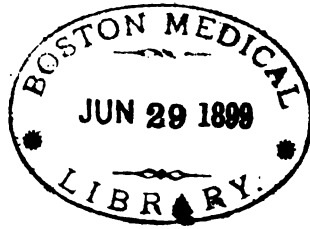
VOLUME LXXI.

JULY-DECEMBER, 1896.

FRANK L. JAMES, PH.D., M.D.,
A. H. OHMANN-DUMESNIL, A.M., M.D., } Editors.
FRANK M. RUMBOLD, M.D., - Business Manager.

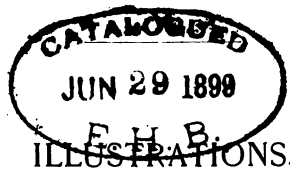
ESTABLISHED 1843.

ST. LOUIS:
ST. LOUIS MEDICAL AND SURGICAL JOURNAL PUBLISHING COMPANY,
1896.



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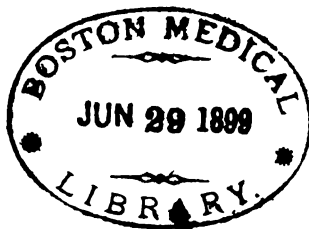
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THE ST. LOUIS Medical and Surgical Journal.

Whole No. 667.

VOLUME LXXI.—JULY, 1896.—No. 1.

Original Communications.

DR. P. G. UNNA'S DERMATOLOGICAL LABORATORY, HAMBURG.

A CONTRIBUTION TO THE HISTORY AND ANATOMY OF THE FAVUS SCUTULUM. By DR. JAMES C. KELLOGG, of New Orleans, U. S. A. (With Plate).

[CONCLUSION.]

As it appeared to me of the greatest importance to discover the nature of the masses that almost resisted staining, lying between the fruit-hyphæ, I was obliged to seek for a stain which would permit of coloring them as much as possible. By the advice of Dr. Unna I employed bleaching by the solution of acid fuchsine-tannin, first introduced by him (obtainable from Grübler). After several comparative experiments with this and other methods and other means of fixing (bichromate of potassium, red ferric cyanide, iodine), I eventually adhered to the composite tannin solutions as bleaching agents. For staining, the most useful agents appeared to be Unna's polychrom-methylene-blue solution and the gentian-aniline water mixture. I will proceed to give in detail those methods for staining the scutula which proved most serviceable to me in this series of investigations.

The material to be examined is generally exceedingly dry, and must therefore be first softened by immersion in water, whereupon it is embedded in celloidine and cut in the usual manner. The sections are then placed once more for ten minutes in warm water, or in a 2-5 per cent. solution of soda, which is heated until vapor rises up, so that they become sufficiently soft, whereby bleaching is more readily achieved. This is followed by washing in water, and then the preparations are immersed in the staining fluid.

Where the study of the living hyphæ and spores in the scutulum is the sole object, the following simplified method will suffice:

I.

1. Polychrome-methylene-blue solution, 10 minutes.
2. Wash in water.
3. Dry on the slide.
4. Decolorize with aniline oil + 1 per mille H Cl.
5. Aniline, xylol, balsam.

This method of staining is simple and yields better preparations than those obtained where bleaching is done with ferric cyanide and hydrochlorate of aniline or bichromate of potassium and muriate of aniline after staining with polychrome-methylene-blue, although these are also good agents.

But if, as was my chief aim, the dead portions of the scutulum, especially the barely tingible periphery, is to be placed in evidence, the following two double stains will, according to my experience, render the best services:

II.

1. Acid fuchsin-tannin solution (according to Unna), 24 hours.
2. Wash with acidulated water, preferably on the slide after superficial drying.
3. Polychrom-methylene-blue solution, a few drops, just sufficient to cover the preparation, then heat over a flame till vapor rises, whereupon again wash with acidulated (H Cl.) water, whereupon the section must present a blue coloration.*
4. Dry the section and again cover it with acid fuchsin-tannin solution till it presents a mixed blue and red color.
5. Thoroughly wash in water to remove the tannin, place it upon the slide and dry.

*Should the red color reappear, heating in the solution of polychrome-methylene-blue must be continued.

6. Remove all traces of water with aniline oil + 10 per cent. tannin.

7. Aniline, xylol, balsam.

III.

1. Gentian-violet-aniline water, 5 minutes.

2. Wash in water.

3. Acid fuchsin-tannin solution, 2 minutes.

4. Wash thoroughly in water.

5. Dry on the slide.

6. Decolorize with aniline oil + 1 per cent. of muriate of aniline.

7. Aniline, xylol, balsam.

This last described method seems to be the best for simultaneous demonstration of living and dead mycelia.

By means of these methods I first essayed to answer the question: Are foreign substances contained in the scutulum besides the fungi?

In order to answer this query it will be necessary to turn our attention first of all to the barely stainable masses in the periphery of the scutula, for these especially have been the masses which many former authors believed to be epithelium, or the broken-down remains of such, or else inflammatory products. These masses increase in proportion to the age of the scutulum. In the young scutula they are restricted to a thin, outermost zone, while in many of the old scutula which I have examined a broad band, projecting more and more towards the centre, has evolved itself. Finally the easily stainable, centrally located fungus is entirely, or almost entirely, supplanted by these badly staining masses.

From these conditions alone, and even before gaining insight into these masses by improved methods of fixation, it is clear that the hardly stainable masses exhibit qualities which are the reverse of those of the fungus itself, and that step by step from the outlines of the preformed scutulum towards the centre of the fully-formed structures they progressively supplant the original favus fungus. If, as is generally believed, these structures were of epithelial origin, a comparison of the scutula in their various stages of development would yield the remarkable result that the older they are the more they are permeated by epithelium from the periphery; whereas these same advocates of this theory are disposed to consider the masses to be old, defunct and disintegrating epithelium. In my opinion, such cells would be quite

unable to migrate from their definite locality and advance like young epithelium does. Besides, the possibility that we are here dealing with young epithelium, having a tendency to progress in a centripetal direction, must be rejected for the one reason alone that in these masses, as will be presently discussed, no nuclei are found.

On staining these masses by the double methods above described, however, they will be found to dissolve into a dense network of varicose, swollen, antler-shaped formations, which take the red color of the acid fuchsine, contrary to the hyphæ and spores of the center, which are colored intensely blue (methylene blue) or violet (gentian). In very good sections it is possible to demonstrate at the boundary between the deeply-stained fungous masses and the barely-stainable masses of the periphery, appreciable transitions from the blue and violet-colored hyphæ to the rose-colored branches of the latter. At this point the hyphæ lose their dark color and become considerably swollen but retain their peculiar knotted and antler-shaped form, which distinguishes them, even after losing the fungus stain, very plainly from the coarse epithelial masses which surround the scutulum, and have often also taken on the acid fuchsine stain.

On the exterior the red-stained masses of defunct or empty fungus tubes are bounded by the stratum corneum, which encloses the scutulum and is in some parts red, in others blue. In the younger scutula these masses are traversed by a few palisade-like blue or violet-colored hyphæ, which are rooted in the surrounding horny layer. In the older scutula, on the other hand, these last peripheral off-shoots of the living fungus are missing, and the connection between the remnant left vegetating in the center and the horny capsule is preserved by the defunct though firmly coherent hyphen tubes.

It is a remarkable fact, and one which can be verified anew in every scutulum, that at certain parts the cornified cells penetrate for quite a short distance, one or two cell-breadths perhaps, into the interior of the scutulum and are perceptible between the hyphæ, be they dead or still living, whereas at other parts the scutulum is bounded by a sharply demarcated margin of horny cells. These cells projecting farthest into the scutulum and receding from the margin rest of the horny layer can nevertheless readily be recognized as to their nature. They form masses, exhibiting

here and there remains of nuclei, and by no means appear as masses in process of disintegration or in the act of dissolving into an amorphous granular mass, as has been presumed by some investigators. They simply lie disconnected between the most peripheral off-shoots of the scutulum.

The following assertions of several dermatologists I have, therefore, been quite unable to verify, inasmuch as they refer to the scutulum containing epithelium and decomposed and detritus-like remains of epithelium.

Gudden had repeatedly mentioned detritus, though of a molecular kind (page 7, 8, 27), into which the fungi themselves dissolve when dead; and also G. Simon (page 300) speaks of "a mass consisting of small molecules," in such a connection with his description of the fungus that he also without doubt may be believed to have hereby meant disintegrated fungus elements. In the same manner Küchenmeister (II. Pt., 1855, pp. 56-57) mentions an "amorphous, homogeneous, very finely-granular stroma consisting of organic substance," with regard to which he expressly states that it is neither pus nor serous exudate nor of epidermoidal nature, but belonging to the fungus itself.

Nevertheless in Hebra-Kaposi (1876, pages 607 to 608) we find the subject curtly dismissed with the following remark:

"The finely-granular, pasty mass by means of which the favus elements adhere together is derived from the products of decayed epidermis cells and the secretions of the glands"—Hebra having had already in his *Atlas* included the "epidermis" among the component elements of the scutulum.

Henceforth this "epithelial detritus" in the scutulum seems to have achieved quite an established position in dermatological works. Behrend, writing in 1879, says (page 502):

"Further, one always finds epidermis cells and granular detritus, which latter the adherents of modern mycology so delight to term micrococci," by which he perhaps means the statement of Neumann (Lehrbuch, 5th ed., p. 625): "This is followed by a layer of finely-granular masses (micrococcus)."

From these quotations it would seem as if a transformation of fully developed corneified cells into granular masses were a generally recognized fact. We do indeed know of a series of degenerations of the horny masses with partial liquefaction; thus the "nuclear degeneration" in cutaneous horns and in onychogryphosis, as described by Unna, in which granules possessed of

considerable tingibility in the manner of nuclei develop in the interior of the cell membrane. Further, we may mention the well known liquefaction of horny cells, leading to the formation of excavations like marrow cavities in solid corneified structures. But these two ordinary kinds of degeneration of horny cells are always observed in connection with papillæ, rising high up in the horny mass and imparting to it a wave-like structure. The kinds of degeneration here referred to are always found as points exactly above the summit of the enclosed papillæ; the horny masses between present no trace of such changes (*vide* chap. on Hawthorn u. Onychogryphose in *Unna's Histopathologie*).

But apart from the fact that the surroundings of the scutulum even on the under surface exhibit no papillæ rising up into the horny layer, it must be remembered that nobody has hitherto really observed and described these generations just referred to, within the scutulum or even at its borders. I can therefore only presume that these amorphous masses, which are so difficult to define, this detritus of former authors, must be identical with the defunct peripheral hyphæ, or that old scutula, infected secondarily by cocci and bacilli, may have been examined, and that the micro-organisms were mistaken for decayed epithelium.

As regards the questionable presence of epithelium in the scutula therefore, I quite accept Unna's view in ascribing to them no role whatever in the composition of the scutulum. Likewise the assumption of leucocytes and exudations being present in the interior of the scutula, as asserted by Weyl (Ziemssen) and Wölsch*), is by no means justified.

In quite young normal scutula one often finds no trace of migration cells in the circumference of the encapsulating horny layers. It is therefore certain that they do not belong to the typical configuration of the scutulum. Experiments performed by Unna on animals have shown that migration of the leucocytes takes place chiefly under two conditions alone in favus. The first of these is the primary infection of the skin, when the fungus spreads in an irregularly concentric direction in the corneified layer without forming scutula, and is for the greater part again eliminated in the shape of favus crusts containing leucocytes. If, meanwhile, the fungus has obtained a footing in certain parts of the epidermis, preferably in the orifices of the

*Wölsch, *Arch. f. Derm. u. Syph.*, xxxi. Bd., 1 Heft, 1895, page 56.

hair follicles, there then commences the second period of unimpeded scutular growth, in which no migration of white blood corpuscles is observed. This latter again occurs only when, be it spontaneously, or in consequence of the application of medicaments, an abnormal condition of the irritation of the scutulum-bearing skin is produced. By these dermatides occurring at irregular intervals, walls of leucocytes are erected around the scutula and form in connection with the horny cells various crusts by which the scutula are lifted up and partially cast off. By this process, however, a cure is generally not effected, and under the leucocytic crusts new scutula are formed unimpeded by the pus corpuscles, so that frequently one can observe both in animals and in man scutula superimposed in layers one over another and separated by crusts. This condition I have observed in the coarse favus masses of my second case, while the more recent scutula of the first case exhibit only here and there, and not even to any great extent or with regularity, an environment of leucocytes. In my second case a further cause of secondary leucocytosis is to be found in the accumulation of numerous organisms in the dissolving scutula, a point which I must immediately enter into more fully.

The histological conditions in man would thus, according to my experience, accurately coincide with the facts experimentally ascertained in animals by Unna, with the only difference that these latter are much more precise and conclusive, for the student will far less easily have an opportunity of examining on the human body scutula which have until then been utterly uninfluenced by medicaments and other artificial means of irritation. This, indeed, must be rigidly excluded if one is desirous of forming a correct opinion on the occurrence of leucocytes in the scutulum.

Accordingly I can condense my opinions on this subject to the simple statement, that under normal conditions and during its uninfluenced growth the scutulum attracts no leucocytes, but that these latter are very often attracted in consequence of external influences causing the death and elimination of the scutulum, and that the pus corpuscles are as a rule only found in the shape of leucocytic crusts, very rarely as true suppuration, and further that *even in these latter cases the leucocytes do not penetrate into the interior of the scutulum.*

Finally, we may ask ourselves whether true organisms growing

in the scutula can be found under normal conditions. On reading the complicated precautions employed by Kröl and by Pick, considered indispensable for obtaining pure cultures of favus, one might really be induced to believe that every scutulum swarmed with various organisms, so that a master's hand in bacteriological science was necessary to procure a pure culture from a scutulum. In point of fact, however, every fresh and intact scutulum without an environment of crusts, will immediately yield a pure culture when manipulated with clean instruments. I am even disposed to consider it wrong to uphold the notion that it is at all a complicated or difficult matter to obtain pure cultures of favus (or of trichophyton); the scientific knowledge of the general practitioner will undoubtedly be increased when he knows how easy it really is for every beginner to make pure cultures of these cutaneous fungi.

The fresh scutula which I examined did not anywhere contain a second organism. With older favus masses this was different, as these chiefly consisted of scutula in process of dissolution, permeated and surrounded by crusts and scales. Here I found almost in all the scutula, the greater portion of which be it observed were defunct, secondary organisms to the number of at least three different species in this one case.

1. *A Strepto-Bacillus*.—This micro-organism occupies in several scutula principally the central portions, forming plots along the fissures. From these colonies extend in all directions in intricately convoluted chains throughout the decaying favus. By its linked shape this bacillus reminds one of the strepto-bacillus of the soft chancre, first described by Unna, but it differs from it (1) by having much smaller dimensions (length about $1\ \mu$, breadth $\frac{1}{4}$ – $\frac{1}{2}\ \mu$); (2) by its rounded and sometimes even tapering ends (whereas the strepto-bacillus of soft chancre exhibits abrupt edges); and (3) by not forming multiple chains, as this latter does. It rather inclines to radiate in all directions, forming interwoven, net-like accumulations.

2. *A Coccus*, which forms cloud-like colonies between the decaying hyphæ. These cocci have a diameter of $\frac{1}{4}$ – $\frac{1}{2}\ \mu$, and are generally collected together in dense, round masses, presenting a uniform consistency and probably cohering by means of a coccus mucus.

3. *A Third, Peculiar Organism* appears to be present in the homogeneous round masses and lumps, staining darkly with

methylene-blue and interspersed in streaks through the decaying scutula. At a high magnitude vegetable mucus of a pale violet color and similar to leuconostoc mucus may be observed, contrasting plainly with the blue hyphæ of favus, in spite of both intersecting one another with their network. It is impossible to demonstrate central mycelia in the mucus, but the latter may be shown to consist of spheroid segments, which no doubt represent the cells of the hyphæ.

Although we must decidedly reject the opinion of those authors (Neumann, Weyl, Cornil and Ranvier*) who believe in the existence of secondary micro-organisms in every scutulum, on the other hand we cannot but acknowledge the saprophytosis of various fungi to be a concomitant feature of the decay of the scutula, and occurring chiefly in such parts where the protecting horny covering of the latter has been destroyed.

In collecting the results of my researches, thus fragmentarily discussed hitherto, I believe the assertion justified that the scutulum of favus is purely a fungous body, as stated by Küchenmeister, Unna, and (as it appears) also by Lesser. We have seen that the stratum corneum forms but the exterior capsule of the scutulum, and does not penetrate into it, and that those masses difficult to stain, and almost always found in the periphery of the scutula and seen advancing further towards the centre in the older specimens, consist of defunct mycelia and not of epithelium, exudation elements, epithelial detritus, pus corpuscles or foreign micro-organisms.

The facts here recorded likewise supply us with sufficient data for the solution of the second problem I have set out to solve, viz.:

In what manner does the favus fungus grow in the scutulum?

As each one of the larger scutula presents in its periphery a zone of dead hyphæ interspersed with but a few living mycelial threads, which serve as a connecting link with the living epithelium, it cannot for a moment be supposed that the scutulum grows by sending out fresh mycelium from the periphery (Wäloch). On the contrary, we have seen that the larger and older the scutulum becomes, its living portion is reduced more and more to the central zone. Eventually it is only this centre, consisting of hyphæ and spores, that stains with the ordinary al-

*Cornil et Ranvier, "Manuel d'histologie pathologique." 1869. page 1218.

kaline agents. It is therefore evident that an enlargement of the whole scutulum is only brought about by the radiating arrangement of the mycelia increasing in length towards the interior of the scutulum, in consequence of which the horny layer is pushed apart in all directions. At the same time new spores are continually produced by constriction in the radially-placed mycelia (seed-hyphæ of botanists) in a peripheral direction, as is the rule with oidium fungi, while slowly dying away at the exterior. Such a manner of growth can only be denominated *centripetal* (Unna), and he in this manner shows at once perfectly and sufficiently the peculiarities of the scutulum. As Unna already pointed out (*vide supra*), this centripetal growth and the demarcation from the environs gives a special explanation of the comparative harmlessness, and the absence of continued irritation of the skin by which scutular favus is characterized (in contrast to the scaly, crusted, herpetiform variety).

Consequently, as regards this second question, I entirely share on the strength of my own examinations the opinion first advanced by Unna, to the effect that in the scutulum a special centripetal growth of favus is invoked. As such a mode of growth has hitherto not been observed in any other cutaneous fungi, I agree also with Unna (*vide* his Histopathology, page 382), that the scutulum must be acknowledged as a pathognomonic symptom of all favus fungi, which alone clearly distinguishes this group of fungi from the trichophytic species.

EXPLANATION OF THE PLATE.

FIGURE 1.—Half of a transverse section of a fresh favus scutulum. The upper three-quarters show well-stained hyphæ enclosing the separated spores in the center. Beneath, a zone of faintly-stained dead hyphæ.

FIGURE 2.—A part of the lower peripheral zone of figure 1, more highly magnified, showing the transition of the well-stained hyphæ into dead hyphæ difficult to stain.

FIGURE 3.—Colony of cocci in a section from an old favus scutulum which has burst externally. They are situated chiefly on the borderline, and between the (rose-colored) dead hyphæ.

FIGURE 4.—Colonies of strepto-bacilli forming interlaced chains, growing in between the dying hyphæ. The bacillary nature of the links of these chains is, I am sorry to say, not so well shown as in the original preparation and drawing.

FIGURE 5.—Vegetable mucus composed of spherical segments and resembling leuconostoc mucus, traversing the decaying scutula in streaks.



THE REPORT OF THE AMERICAN PEDIATRIC SOCIETY'S COLLECTIVE INVESTIGATION INTO THE USE OF ANTITOXIN IN THE TREATMENT OF DIPHTHERIA IN PRIVATE PRACTICE.* By L. EMMETT HOLT, M.D., W. P. NORTHRUP, M.D., JOSEPH O'DWYER, M.D., and SAMUEL S. ADAMS, M.D., Committee.

This subject was chosen by the officers of the society for its eighth annual meeting, with the belief that a large amount of valuable experience not otherwise available might in this way be reached and collated. It was also believed that a more trustworthy estimate of the value of the serum treatment of diphtheria might thus be obtained than by statistics taken from hospital practice. There are very few hospitals in America that receive diphtheria patients, and the conditions under which patients are admitted to hospitals, and the surroundings while there, are so different from those of private practice, that the measure of success in hospital cases cannot be taken as an index of the results which have been obtained upon this side of the Atlantic with the new treatment.

In order, therefore, to obtain an expression of opinion from American physicians as to the serum treatment, after what had been with most of them their first year's experience, a circular letter was prepared and issued by the committee early in April. This was distributed through the members of the society as widely as could be done during the time allowed. An attempt was made to reach as many physicians as possible who had had experience with the remedy.

The first surprise of the committee was in learning how very widely the serum treatment had been employed, especially in the eastern and mid-western states. With more time, the number of cases collected might easily have been doubled, and perhaps trebled; but enough reports have come in to enable one to see what opinion was held on the 1st of May, 1896, by American physicians who have used this remedy.

The circular letter asked for information upon the following points: Age; previous condition; duration of disease when the first injection was made; the number of injections; the extent of the membrane—tonsils, nose, pharynx, and larynx; whether or not the diagnosis was confirmed by culture; complications or

*Reported at the Eighth Annual Meeting, held at Montreal, Canada, May 26, 1896.

sequelæ, viz., pneumonia, nephritis, sepsis, paralysis; the result; and remarks, including other treatment employed, the preparation of antitoxin used, and general impression drawn from the cases.

Reports were returned from 615 different physicians, with 3,628 cases. Of these, 244 cases have been excluded from our statistical tables. These were cases in which the disease was said to have been confined to the tonsils, and the diagnosis not confirmed by culture, and therefore open to question. A few cases were reported in such doubtful terms as to leave the diagnosis uncertain. The figures herewith given are therefore made up from cases in which the diagnosis was confirmed by culture (embracing about two-thirds of the whole number) and others giving pretty clear evidence of diphtheria, either in the fact that they had been contracted from other undoubted cases, or where the membrane had invaded other parts besides the tonsils, such as the palate, pharynx, nose, or larynx. It is possible that among the latter we have admitted some streptococcus cases, but the number of such is certainly very small.

There are left then of these cases, 3,384 for analysis. These have been observed in the practice of 613 physicians from 114 cities and towns, in fifteen different states, the District of Columbia and the Dominion of Canada.

In the general opinion of the reporters, the type of diphtheria during the past year has not differed materially from that seen in previous years, so that it has been average diphtheria which has been treated. If there is any difference in the severity of the cases included in these reports from those of average diphtheria, it is that they embrace a rather larger proportion of very bad cases than are usually brought together in statistics. The cases, according to the extent of the membrane, are grouped as follows: in 593 the tonsils alone were involved; in 1397 the tonsils and pharynx, the tonsils and nose, the pharynx and nose, or all three were affected. In 1256 cases the larynx was affected, either alone or with the tonsils, pharynx, and nose, one or all. In many instances the statement is made by the reporters that the serum was resorted to only when the condition of the patient had become alarmingly worse under ordinary methods of treatment. This is shown by the unusually large number of cases in which injections were made late in the disease. Again, many physi-

cians, being as yet in some dread of the unfavorable effects of the serum, have hesitated to use it in mild cases and have given it only in those which from the onset gave evidence of being of a severe type. The expense of the serum has unquestionably deterred many from employing it in mild cases. These facts, it is believed, will more than outweigh the bias of any antitoxin enthusiasts by including many mild cases which would have recovered under any treatment. It will, however, be remembered that tonsillar cases not confirmed by culture have not been included.

Only two reports, embracing a series of over 100 cases, have been received, most of the observers having sent in from five to twenty cases, although there are many reports of single cases, particularly of single fatal ones.

In addition to this material which has come in response to the circular, there have been placed at the disposal of the committee, by the courtesy of Dr. H. M. Biggs, 942 cases treated in their homes in the tenements of New York. Of these, 856 were injected by the corps of inspectors of the New York Health Board, upon the request of the attending physician, and eighty-six others were treated by physicians receiving free antitoxin from the Health Board. In the first group the diagnosis of diphtheria was confirmed by culture in every case, and in all of the latter except twenty-six; in these the diagnosis rested upon extensive membranous deposits or laryngeal invasion. The cases of the New York Health Board were of a more than ordinarily severe type, 485, or more than 50 per cent., of these being reported as being in bad condition at the time of injection; to mild cases the inspectors were not often called. Further, an unusually large number of them (38 per cent.) were injected on or after the fourth day of the disease. In 182 of these cases only the tonsils were affected; in 466 the tonsils with the pharynx or nose, the pharynx and nose, or all three; in 294 the larynx was invaded either with or without disease of the tonsils, nose, or pharynx.

Through the courtesy of Dr. Biggs, the committee is able to include also a partial report upon 1,458 cases from Chicago, treated in their homes in that city by a corps of inspectors of the Health Department. It was the custom in Chicago to send an inspector to every tenement-house case reported, and to admin-

ister the serum unless it was refused by the parents. These cases were therefore treated much earlier, and the results were correspondingly better than were obtained in New York, although the serum used was the same in both cities, viz.: that of the New York Health Board.

THE RESULT AS INFLUENCED BY THE TIME OF INJECTION.

In Table I. are given the results obtained in these three different groups of cases, classified according to the day on which they received the first injection of serum antitoxin.

The grand total gives 5,794 cases with 713 deaths, or a mortality of 12.3 per cent., including every case returned; but the reports show that 218 cases were moribund at the time of injection, or died within twenty-four hours of the first injection. Should these be excluded there would remain 5,576 cases (in which the serum may be said to have had a chance) with a mortality of 8.8 per cent.

Of the 4,120 cases injected during the first three days there were 303 deaths—a mortality of 7.3 per cent., including every case returned. If from these we deduct the cases which were moribund at the time of injection, or which died within twenty-four hours, we have 4,013 cases, with a mortality of 4.8 per cent. Behring's original claim, that if cases were injected on the first or second day the mortality would not be 5 per cent., is more than substantiated by these figures. The good results obtained in third-day injections were a great surprise to your committee. But after three days have passed the mortality rises rapidly, and does not differ materially from ordinary diphtheria statistics. Our figures emphasize the statement so often made, that relatively little benefit is seen from antitoxin after three days; however, it must be said that striking improvement has in some cases been seen even when the serum has been injected as late as the fifth or sixth day. The duration of the disease, therefore, is no contraindication to its use.

TABLE I.—DAY OF INJECTION AND RESULT.

	Injected on 1st Day.			Injected on 2nd Day.			Injected on 3rd Day.			Injected on 4th Day.			Injected on 5th Day.			Day of Injection Unknown			Totals.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
The Committee's Report..	764	38	4.9	1065	89	8.3	620	79	12.7	336	77	22.9	390	152	38.9	215	15	7.0	3384	450	13.0
New York Health Board..	126	11	8.7	215	26	12.0	228	37	16.6	153	32	20.9	203	59	29.0	17	4	23.5	942	169	17.8
Chicago Health Board....	106	0	0	336	5	1.5	660	18	2.7	269	38	14.1	97	33	34.0	0	0	0	1468	94	6.4
Totals.....	996	49	4.9	1616	120	7.4	1508	134	8.8	758	147	20.7	690	244	35.3	232	19	8.2	5794	713	12.3

THE INFLUENCE OF BACTERIOLOGICAL DIAGNOSIS UPON THE
STATISTICS.

This is shown in Table II.

TABLE II.—DIAGNOSIS CONFIRMED BY BACTERIOLOGICAL
EXAMINATION.

	Cases.	Deaths.	Mortality.
Committee's Reports.....	2,453	302	12.3 per cent.
N. Y. Board of Health.....	916	160	16.9 " "
Chicago " ".....	1,468	94	6.4 " "
Totals.....	4,837	556	11.4 " "
(Excluding 145 cases which were moribund or which died in twenty-four hours).....			8.7 " "

DIAGNOSIS FROM CLINICAL EVIDENCE ONLY.

	Cases.	Deaths	Mortality.
Committee's Reports.....	931	148	15.7 per cent.
N. Y. Board of Health.....	26	9	34.6 " "
Totals.....	957	157	16.3 " "
(Excluding 72 cases either moribund or dying in twenty-four hours.....			9.6 " "

In the cases in which the diagnosis was not confirmed by a bacteriological examination, the mortality is thus 5 per cent. higher than in the bacteriological cases. This difference is to be explained by two facts: first, as already stated, that we have excluded from our reports all tonsillar cases (and hence most of the very mild ones) not confirmed by bacteriological examinations; and, secondly, by the fact that this group of cases comprises those treated in the country where physicians have hesitated to use antitoxin unless the type of the disease was a grave one, and where also a large proportion of the injections were made later than in the cities. However, should we leave out the moribund cases, the mortality is but 9.6 per cent., which differs but slightly from the cases confirmed by bacteriological diagnosis.

In our subsequent statistics we shall consider together all the cases bacteriologically confirmed and otherwise, as statistics are not materially altered by this grouping.

THE RESULTS AS MODIFIED BY THE AGE OF PATIENTS.

Unfortunately the ages have not been furnished in the report of the Chicago cases, and we have therefore only the cases reported to the committee and those from the New York Board of Health for analysis. In Table III. are shown the mortality of the different ages grouped separately.

TABLE III.—AGE AND RESULT OF TREATMENT.

	0 to 2 Years.			2 to 5 Years.			5 to 10 Years.			10 to 15 Years.			15 to 20 Years.			20 Years and over.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Committee's Report	631	137	21.7	1276	175	13.7	883	108	12.2	276	19	6.8	112	4	3.6	214	9	4.2
New York Health Board.	236	65	27.5	466	83	17.8	178	21	11.2	29	0	0	11	0	0	22	0	0
Totals	867	202	23.3	1742	258	14.7	1061	129	12.1	305	19	6.2	123	4	3.2	236	9	3.8
Moribund	43			59			59				9		0			4		
Mortality Excluding Moribund Cases			19.2			13.3			8.7			3.3			3.2			2.1

The highest mortality is seen, as in all reports, to be in the cases under two years; but including all those returned, even those that were moribund when injected, the death rate was but 23.3 per cent. (21.7 per cent. of the committee's cases), while if we exclude cases moribund when injected, or dying within the first twenty-four hours, it falls to 19.2 per cent.

After the second year there is noticed a steady decline in mortality up to adult life. In many of the reports previously published the statement has been made that no striking improvement in results was observed in adult cases treated by the serum. Our figures strongly contradict this opinion. Of 359 cases over fifteen years old, which were returned, there were but thirteen deaths. That the reader may judge for himself how far antitoxin is to be held responsible for the result, a brief summary of these thirteen cases is appended.

CASE I.—Fifteen years old; injected on the fourth day; membrane covering tonsils and pharynx; profoundly septic; sinking rapidly when injected; died in two hours. "My only death in seventeen cases" (Jones, Gloucester, Mass.).

CASE II.—Forty-four years old; injected on the fourth day; membrane on the tonsils and pharynx; in bad condition; died three hours after injection. The tonsils had been previously incised, the early diagnosis having been quinsy.

CASE III.—Thirty-one years old; injected on the sixth day; membrane on the tonsils, nose, pharynx, and larynx; intubation; sepsis; in bad condition; lived eight hours after injection.

CASE IV.—Thirty-five years old; injected on the fifth day; membrane on the pharynx and nose (?); in bad condition; septic; died in twelve hours.

CASE V.—Sixty years old; in bad condition; had serious mitral regurgitation; injected on the fourth day; membrane covering tonsils, pharynx and larynx; died from heart failure on following day.

CASE VI.—Sixty years old; "kidney trouble for years;" injected on the third day; very extensive membrane, covering tonsils, pharynx and nose; profound sepsis; in bad condition; died suddenly on the day after injection.

CASE VII.—Seventeen years old; in bad condition; convalescing from measles; enormous adenopathy; profound sepsis; exceedingly high temperature; membrane covering tonsils and nose;

injected at the end of forty-eight hours; three injections, temporary improvement after each one; duration of life not given.

CASE VIII.—Fifteen years old; in bad condition; injected on the ninth day; membrane covering tonsils, nose, pharynx and larynx; no operation; enormous infiltration of the tissues of the neck; nephritis; sepsis; lived four days and died of sepsis.

CASE IX.—Twenty years old; injected on the third day; membrane upon the tonsils, nose, pharynx and larynx; "a stubborn patient who got up before he was allowed, and died suddenly after it."

CASE X.—Twenty-five years old; injected on the fifth day; membrane covering both tonsils, entire pharynx, and completely occluding nose; nephritis and sepsis; throat cleared off entirely; died suddenly on the fourteenth day from cardiac paralysis.

CASE XI.—Nineteen years old; injected on the fifth day; membrane upon the tonsils and pharynx; profound sepsis; duration of life unknown.

CASE XII.—Twenty-two years old; injected on the fourth day; membrane on the tonsils and gums; sepsis; died on the sixth day.

CASE XIII.—The well-known Brooklyn case, reported in 1895. Girl, sixteen years old, who died suddenly ten minutes after injection.

Such are the adult cases which antitoxin failed to cure. Four of them were moribund at the time of injection, no one of them living over twelve hours. Two, both sixty years old, were already crippled by previous organic disease, one of the heart and the other of the kidneys. In the measles case there was undoubted evidence of streptococcus septicæmia. Only two of the cases were injected as early as the third day; three of them on the fifth day; and one on the ninth day. Omitting the four moribund cases, the mortality of 355 adult cases treated with the serum is 2.5 per cent.

PARALYSIS.

Reliable data upon this point and those hereafter to be mentioned are to be had only from the 3,384 reports returned to the committee. Of these, paralytic sequelæ appeared in 328 cases, 9.7 per cent. Of the 2,934 cases which recovered, paralysis was present in 276, or 9.4 per cent. Of the 450 cases which died, paralysis was noted in 52, or 11.4 per cent.

The variety of the paralysis and the date of injection is shown in the following table:

TABLE IV.—VARIETY OF PARALYSIS AND THE DAY OF INJECTION.

RECOVERY CASES.	CASES	DAY OF INJECTION.					
		1st Day.	2d Day.	3d Day.	4th Day.	5th Day.	Unknown.
Paralysis mentioned (variety not specified)	132	8	32	32	19	16	23
Throat only (aphonia, nasal voice or regurgitation)	114	16	21	25	11	16	24
Extremities	14	3	5	2	—	3	1
Ocular	11	—	4	3	1	2	1
General (multiple neuritis)	4	—	1	2	1	—	—
Sterno-mastoid	1	—	1	—	—	—	—
FATAL CASES.							
Paralysis mentioned (variety not specified)	9	—	3	2	1	2	1
*Cardiac, late after throat clear (in 4 of them throat also)	32	1	2	8	9	8	4
Throat only	6	—	2	—	—	—	4
General late	4	—	1	—	1	2	—
Muscles of Respiration	1	—	1	—	—	—	—
Totals	328	28	73	76	43	49	59

Observations of some of the individual cases are interesting, particularly those of cardiac paralysis. It is twice stated that the child had gotten up and walked out of the house, where it was found dead. Twice death occurred after sitting up suddenly; once, on jumping from one bed into another. One patient of twenty years got up contrary to orders and died soon afterward. Another patient was apparently well until he indulged in a large quantity of cake and candy, soon after which cardiac symptoms developed, and he died shortly. One case was that of a woman sixty years old, who had serious organic cardiac disease.

It is difficult from these statistics to state what protective power the serum may have over the nerve cells and fibres. Apparently this is not great unless the injections are made early in

* Cases of heart failure occurring at the height of the disease have not been included here; although they are mentioned among the cases of cardiac paralysis in the table of fatal cases.

the disease; and even then in severe cases the amount of damage done to these tissues in twenty-four hours may be very great, even irreparable. Time is not the only element in estimating the effect of the diphtheria toxins.

Great discrepancy exists in the statements made regarding the frequency of paralytic sequelæ after diphtheria. In a series of 1,000 cases reported by Lennox Browne, paralytic sequelæ were present in 14 per cent. In 2,448 cases by Sanne, paralysis was noted in 11 per cent. In the series of cases here reported, the difference is slightly in favor of the antitoxin treatment, but paralysis is certainly frequent enough to show how extremely susceptible the nervous elements are to the diphtheria toxins. One thing is quite striking from a study of these cases, and that is the proportion that have died from late cardiac paralysis. That very many of them would undoubtedly have succumbed earlier in the disease from suffocation (laryngeal cases) or diphtheritic toxæmia, had the serum not been employed, is beyond question. Although the serum is able to rescue even many such desperate cases, it cannot overcome the effects of the toxins upon the cells, which have occurred before it was injected.

SEPSIS.

Sepsis is stated to have been present in 362 of the 3,384 cases, or 10.7 per cent. It was present in 145, or 33 per cent., of the fatal cases. Some explanation is necessary for a correct appreciation of these figures. The majority of the reporters, it is plain from their remarks, have not distinguished between diphtheritic toxæmia and streptococcus sepsis. The former is certainly meant in the great majority of the cases. There is a very small proportion in which there is evidence of streptococcus sepsis. The six cases complicating measles, and the five complicating scarlet fever, however, should possibly be included among this list.

NEPHRITIS.

The statements on this point are quite unsatisfactory. The reports state that nephritis was present 350 times, or in 10 per cent. of the cases. On the one hand, it must be stated that the diagnosis of nephritis rests in many cases simply upon the presence of albumen in the urine; but, on the other hand, it is true that in a large number of the cases, more than half, no examina-

tion of the urine is recorded as having been made, so that it is impossible to state with anything like approximate accuracy the frequency of nephritis in these cases. Of the 450 fatal cases, the presence of nephritis is mentioned without qualification or explanation in thirty-nine cases; these being usually put down also as septic, dying in the acute stage of the disease. There are fifteen fatal cases, however, in which the renal disease was stated as the cause of death. In no less than nine the nephritis occurred late in the disease, usually during the second or third week. In these fifteen cases the evidence of severe nephritis was conclusive, such symptoms being present as dropsy, suppression of urine, with coma or convulsions.

BRONCHO-PNEUMONIA.

Broncho-pneumonia is stated to have been present in 193 of the 3,384 cases, or 5.9 per cent.—a remarkably small proportion when compared with hospital statistics. Among the patients that recovered, broncho-pneumonia was noted 114 times, or in 3.8 per cent.; among the fatal cases seventy-nine times, or in 17.5 per cent., but in only about one-half of these was the pneumonia the cause of death. Of these, thirty-seven were laryngeal cases operated upon late, ten were septic cases, and the pulmonary disease was coincident with the height of the diphtheritic process. In seven pneumonia was independent of both the above conditions, occurring late in the disease in all but two.

LARYNGEAL CASES.

Of the 3,384 cases reported to the committee, the larynx is stated to have been involved in 1,256 cases, or 37.5 per cent. This proportion is somewhat higher than is usual, and is partly explained by the fact that several physicians have sent in the reports only of their laryngeal cases. These laryngeal cases occurred in the practice of 379 physicians.

In 691, or a little more than one-half the number, no operation was done, and in this group there were 128 deaths. In forty-eight of them, laryngeal obstruction was responsible for the fatal issue, operation being refused by the parents, or no reason for its being neglected having been given. In the eighty remaining fatal cases the patients died of other complications, and not from the laryngeal disease.

In the 563 cases, therefore, or 16.9 per cent. of the whole

number, there was clinical evidence that the larynx was involved, and yet recovery took place without operation. In many of these cases the symptoms of stenosis were severe, and yet disappeared after injection, without intubation. No one feature of the cases of diphtheria treated by antitoxin has excited more surprise among the physicians who have reported them, than the prompt arrest, by the timely administration of the serum, of membrane which was rapidly spreading downwards below the larynx. Such expressions abound in the reports as "wonderful," "marvelous," "prepared to do intubation, but at my next visit the patient was so much better it was unnecessary," "in all my experience with diphtheria have never seen anything like it before," "no unprejudiced mind could see such effects and not be convinced of the value of the serum," etc., etc.

In establishing the value of the serum, nothing has been so convincing as the ability of antitoxin, properly administered, to check the rapid spreading of membrane downward in the respiratory tract, as is attested by the observations of more than 350 physicians who have sent in reports.

Turning now to the operative cases we find the same remarkable effects of the antitoxin noticeable. Operations were done in 565 cases, or in 16.7 per cent. of the entire number reported. Intubation was performed 533 times, with 138 deaths, or a mortality of 25.9 per cent. In the above are included nine cases in which a secondary tracheotomy was done, with seven deaths. In thirty-two tracheotomy only was done, with twelve deaths—a mortality of 37.4 per cent. Of the 565 operative cases, sixty-six were either moribund at the time of operation, or died within twenty-four hours after injection. Should these be deducted, there remain 499 cases operated upon by intubation or tracheotomy, with 84 deaths—a mortality of 16.9 per cent.

Of the 2,819 cases not operated upon, there were 312 deaths—a mortality of 11.3 per cent. Deducting the moribund cases, or those dying within twenty-four hours after injection, the total mortality of all non-operative cases was 9.12 per cent.

Let us compare the results of intubation in cases in which the serum was used, with those obtained with this operation before the serum was introduced. Of 5,546 intubation cases in the practice of 242 physicians, collected by McNaughton and

Maddren (1892), the mortality was 69.5 per cent. Since that time statistics have improved materially by the general use (in and about New York, at least) of calomel fumigations. With this addition, the best results published (those of Brown) showed in 279 cases a mortality of 51.6 per cent.

Let us put beside the cases of McNaughton and Maddren the 533 intubations with antitoxin, with 25.9 per cent. mortality. With Brown's personal cases let us compare those of the fourteen observers who have reported to the committee ten or more intubation operations in cases injected with serum. These comprise 280 cases with sixty-five deaths—a mortality of 23.2 per cent. In both comparisons the mortality without the serum is more than twice as great as in the cases in which serum was used.

The reports of some individual observers concerning intubation with the serum are interesting:

Neff, New York: twenty-seven operations, with twenty-seven recoveries.

Rosenthal, Philadelphia: eighteen operations, with sixteen recoveries.

Booker, Baltimore: seventeen operations, with seventeen recoveries, including one aged ten months, and one seven and a half months.

Seward, New York: eight operations, with eight recoveries.

McNaughton, Brooklyn: "In my last seventy-two operations without serum, mortality 66.6 per cent.; in my first seventy-two operations with serum, mortality 33.3 per cent."

O'Dwyer, New York: "In my last 100 intubations, first seventy, without serum, mortality 73 per cent.; last thirty, with serum, mortality 33.3 per cent."

But even these figures do not adequately express the benefit of antitoxin in laryngeal cases. Witness the fact that over one-half the laryngeal cases did not require operation at all. Formerly 10 per cent. of recoveries was the record for laryngeal cases not operated upon. Surely, if it does nothing else, the serum saves at least double the number of cases of laryngeal diphtheria that has been saved by any other method of treatment.

The great preponderance of intubation over tracheotomy operations shows how much more highly the profession in this country esteems the former operation.

A STUDY OF THE FATAL CASES.

Of the 450 fatal cases in the committee's report, 229, or one-half, received their first injection of the serum on or after the fourth day of the disease, and 152, or over one-third of these, on or after the fifth day.

There were fifty-eight cases in which it was stated that the child was moribund at the time of injection, the serum being administered without the slightest expectation of benefit, but at the earnest solicitation of the parents.

There remain 350 cases in which the cause of death could be pretty accurately determined by the reports. These died from the following causes, the most important cause being placed first:

Sepsis (including diphtheritic toxæmia) was the cause of death in 105 cases; of which sixteen had nephritis, four were intubated or tracheotomized, two were laryngeal cases not operated upon, four had paralysis, one had pneumonia, and in one the fatal sepsis was attributed to a traumatic condition of the left knee.

Cardiac paralysis was the cause of death in fifty-three cases. Under this head are included cases of sudden heart failure occurring at the height of the disease (twenty-one in number), as well as those more commonly designated as heart paralysis, where death occurred suddenly after the throat cleared off. Of the latter there were thirty-two examples; four of these cases had throat paralysis, nineteen were septic, eight had nephritis, five were intubated, and one tracheotomized.

Broncho-pneumonia was put down as the cause of death in fifty-four cases. In thirty-seven of these it followed laryngeal diphtheria; of these twenty-two were intubated, and four tracheotomized; two had nephritis; nine were septic. Broncho-pneumonia and sepsis was the cause of death in ten cases, of which three had nephritis and one general paralysis. Broncho-pneumonia caused death in seven cases, apart from sepsis or laryngeal diphtheria; of these only one had nephritis; one died from heart failure; and in five pneumonia came on late in the disease.

Laryngeal diphtheria without operation caused death in forty-eight cases. In some of these the operation was refused by the parents; in others it was neglected by the physician, the patients dying of asphyxia; three of these cases had nephritis, four were septic, two had pneumonia, and one had sepsis and nephritis.

Diphtheritic tracheitis or bronchitis caused death in eleven cases; all of these were intubated, and in two there was evidence of the existence of membrane in the bronchi before operation. There were thirty-three other cases in which death followed laryngeal diphtheria without the supervention of pneumonia. It is highly probable that in some of these death was due to membranous tracheitis or bronchitis. All of them were operated upon; ten were septic, two had paralysis, and one had nephritis.

Sudden obstruction of the intubation tube was the cause of death in three other laryngeal cases.

The tube was coughed up in three cases, fatal asphyxia occurring before the physician could be summoned.

Died on the table during tracheotomy, one case.

Nephritis was the cause of death in fifteen cases; seven of these were septic, and three had been intubated.

General paralysis was the cause of death in five cases; in all probably the pneumogastric was involved.

Paralysis of the respiratory muscles produced death in one case, one of laryngeal diphtheria, which was intubated, and was complicated by broncho-pneumonia.

Measles associated with diphtheria produced death in six cases; five of these were laryngeal and were intubated; in two there was pneumonia, and in two sepsis. Diphtheria developed during the height of the measles, or immediately followed it.

Scarlet fever with diphtheria was the cause of death in six cases; in three of these there was broncho-pneumonia, nephritis and sepsis; in two scarlet fever preceded diphtheria, and in one of these there was sepsis with gangrene of the tonsils. In the sixth case the patient died of scarlet fever, which developed during convalescence from the diphtheria.

Gangrene of the cervical glands or cellular tissue of the neck was the cause of death in two cases, associated with profound general sepsis.

Endocarditis caused death in one case nineteen days after the diphtheria.

Diphtheritic inflammation of the tracheal wound with sepsis caused death in one case.

General tuberculosis, five weeks after diphtheria, was assigned as the cause of death in one case.

Exhaustion was the cause of death in three cases, one a pro-

tracted case; another complicated by pneumonia and sepsis; one by nephritis.

Convulsions was the cause of death in three cases, apart from disease of the kidneys. In one, the well-known Brooklyn case, the girl died ten minutes after the injection; in another twenty-four hours after injection; in the third the particulars were not given.

Meningitis was assigned as the cause of death in one case.

THE KIND OF ANTITOXIN USED.

They are given in the order of frequency with which they have been used. First, the serum prepared by the New York Board of Health; second, Behring's; third, Gibier's*; fourth, Mulford's; fifth, Aronson's; sixth, Roux's. In addition, a large number of cases are reported as having been treated by the serum prepared by the health boards of different cities—Brooklyn, Newark, Rochester, Pittsburgh, etc. The largest number of cases have been treated by the serum prepared by the New York Health Board, a very large number of Behring's serum, all others being relatively in small numbers.

Dosage and number of injections.—In the great majority of cases but one injection is reported. In very severe ones two and three have been given. The largest amount is in a case by Weimer (Chicago), who gave eighteen injections of Behring's serum to a laryngeal case in a child thirteen years old. Another instance of ten injections is reported with no unfavorable symptoms.

As a rule, the dosage has been smaller in antitoxin units than is now considered advisable, particularly in many of the laryngeal cases and others injected later than the second day.

CASES INJECTED REASONABLY EARLY (DURING THE FIRST THREE DAYS) IN WHICH ANTITOXIN IS SAID TO HAVE PRODUCED NO EFFECT, THE DISEASE ENDING FATALLY.

These cases are twenty in number. Brief reports are introduced that the reader may judge to what degree they may be regarded as a test of the serum treatment. In our statistical tables all of them have been included among the fatal cases.

*It is worthy of note that in the tests made by the State Board of Health of Massachusetts, published under date of April 6, 1896, this serum was found far below the standard as labelled upon the bottle; thus a package marked to contain 2,500 units, by test was found to contain less than 700. All the other varieties of serum tested were found essentially up to the standard.

In Cases I. and II. the cultures were reported negative.

CASE I., by Gallagher, New York.—Child eighteen months old; septic; although no eruption was present the reporter was “inclined on reflection to regard this case as one of scarlatinal sore throat.”

CASE II., by Potter, Buffalo.—Male, fourteen months old; two cultures made, but no Löffler bacilli found; membrane in the nose and pharynx. Injected on the third day, one dose of Behring's serum No. 1. No improvement; death from sepsis. “Probably pseudo-diphtheria” (I. H. P.).

In Cases III. to IX. no cultures were made.

CASE III., by Tefft, New Rochelle.—Seven years old; injected after eighteen hours' illness; two injections of Behring's No. 2 serum; membrane on the tonsils, pharynx and nose; no effect observed from injections, patient dying on the third day.

CASE IV., by Tefft.—Male four years old; membrane on the tonsils and pharynx; injected after thirty-six hours' illness with Behring's No. 2; died on the third day; no noticeable effect from the injection.

CASE V., by Tefft.—Six years old; membrane on the tonsils, nose and pharynx; septic; injected after thirty-six hours' illness; three injections of Behring's No. 2. “Saw no effect from the injections, the disease going steadily on to a fatal termination.”

CASE VI., by Cameron, Montreal.—Two and a half years old, fifty hours ill; membrane on the tonsils, nose and pharynx; septic; no improvement noticed, and child died twenty hours after injection.

CASE VII., by Baker, Newtonville, Mass.—Three years old; laryngeal diphtheria; injected on the third day 10 c.c. Roux's serum; cyanosis; intubation; temperature 103° F., and continued high until death in eighteen hours after operation; injections had no effect.

CASE VIII., by Anderson, New York.—Three years old; injected after three hours' illness; membrane on the tonsils, nose and pharynx; one injection New York Health Board antitoxine. “A case of malignant diphtheria, full duration twenty-four hours.”

CASE IX., by McLain, Washington.—Four years old; twelve hours sick; membrane on the pharynx and larynx; two injec-

tions; no operation; first injection early in the morning, the other early in the afternoon; died the same day; no change in the condition; antitoxin had no apparent effect.

In CASES X. to XIII. diphtheria complicated measles, all reported by W. T. Alexander, New York. Disease confined to the larynx in all; in three stenosis developed during measles, and in one while the patient was convalescing from measles; diagnosis confirmed by culture in every case, and in all intubation performed. Antitoxin seemed to have no effect, the cases going on to a fatal termination; all received their injections within twenty-four hours after the laryngeal symptoms appeared.

In three cases—XIV. to XVI.—the type of the disease was malignant from the outset.

CASE XIV., by Lloyd, Philadelphia.—Fifteen months old; injected after thirty-six hours' illness; diagnosis confirmed by culture; membrane covered the tonsils, pharynx, nose, and larynx; intubation; sepsis; death on the fifth day. Although antitoxin was used as promptly as possible no perceptible effect noticed. One injection, Behring's No. 3, was given.

CASE XV., by Wert, Mount Vernon, N. Y.—Eighteen months old; injected on the third day; diagnosis confirmed by culture; membrane on the tonsils and pharynx. "Very intense type of the disease." Antitoxin could not be procured before the third day; Gibier's serum used. "Died suddenly in apparent convulsions about ten hours after injection; urine not examined; very little passed."

CASE XVI., by Ingraham.—Six years old; membrane covered the tonsils, pharynx and larynx; diagnosis confirmed by culture; pneumonia present; condition very bad; injected after two and a half days' illness; three injections of Behring's serum; no benefit noticed.

CASE XVII., by Johnson, Buffalo.—Three years old; twelve hours ill; case septic from the start; membrane on the tonsils, pharynx, and larynx; diagnosis confirmed by culture. "Antitoxin apparently had very little effect."

CASE XVIII., by Baker, Newtonville, Mass.—Two and a half years old; twenty hours ill; disease confined to larynx; diagnosis confirmed by culture; one injection of Gibier's serum; intubation. "Was doing well a few minutes before death, when child got up in its crib, changed color and died almost immediately." Death

attributed to "sudden heart failure; found no obstruction of the tube."

CASE XIX., by Story, Washington.—Five years old; in fair condition; thirty-six hours ill; diagnosis confirmed by culture; membrane on the tonsils, pharynx, and larynx; one injection of United States Marine Hospital antitoxin; injection produced no effect.

CASES IN WHICH UNFAVORABLE SYMPTOMS WERE, MIGHT HAVE BEEN, OR WERE BELIEVED TO HAVE BEEN, DUE TO ANTITOXIN INJECTIONS.

Only three cases reported to the committee could by any possibility be placed in this category. All of the details furnished by the reporters are reproduced:

CASE I., by Kortright, Brooklyn.—Sudden death in convulsions ten minutes after injection. This case is the already well-known Valentine case, occurring in Brooklyn in the spring of 1895. The principle points were as follows: A girl sixteen years old; in good condition; tonsillar diphtheria; diagnosis confirmed by culture; injected on the first day with 10 c.c. Behring's serum; died in convulsions ten minutes later.

CASE II., by Kerley, New York.—Fairly healthy boy, two and one half years old; membrane on tonsils, pharynx and in nose. Diagnosis confirmed by culture; injected on the morning of the fourth day with 10 c.c. (1000 units) New York Health Board serum; temperature at time of injection 100.4° F.; no sepsis, and child apparently not very sick; urine free from albumen. Distinctly worse after injection; in ten hours temperature rose to 103° F.; urine albuminous, throat cleared off rapidly, but marked prostration and great anemia, with irregular, fluctuating temperature continued, and death from exhaustion with heart failure four days after the use of the serum.

CASE III., by Eynon, New York.—Male, three and one-half years old; diagnosis confirmed by culture; two days ill; membrane on tonsils and in nose; two injections New York Health Board serum. "A rapid nephritis developed after the second injection, causing coma, convulsions and death twenty hours after the second injection." In response to an inquiry for further particulars the following was received: "The case seemed a mild one, but the injection was given one afternoon and repeated the

following afternoon, about 1500 units in all. The urine up to that time had not been examined. About fourteen or sixteen hours after the second injection unfavorable symptoms began to develop pointing to infection of the kidneys. The urine was found to be loaded with albumen. My impression at the time was that the antitoxin either produced, hastened or intensified nephritis, thereby causing the fatal termination."

In regard to the three fatal cases just cited, Case I. is wholly unexplained. In Case II. the query arises, did this sudden change hinge upon the injection of the serum, or was it one of those unexplained abrupt changes for the worse in a case apparently progressing favorably, so often observed in diphtheria? As regards Case III., it will be seen from the letter that the evidence is not at all conclusive. All details available are given, and the reader may draw his own conclusions.

CLINICAL COMMENTS.

The following are selected from hundreds which have been received, and may be taken fairly to represent the sentiments of the physicians who have sent in reports:

Dr. Douglas H. Stewart, New York, sends reports of four cases, all desperate ones, and all "presumably fatal under any other form of treatment." Very extensive membrane in all; larynx involved in three; in one neglected case in a child three years old, *injected upon the fifth day*, the membrane covered the tonsils, nose, pharynx, and larynx. Broncho-pneumonia, nephritis and sepsis all present. Temperature 107° F. at the time of the first injection. Prostration so great that he dared not attempt intubation. Believes that this case would certainly have been fatal in a few hours without antitoxin. Perfect recovery.

In another case, three years old, membrane first discovered in the left ear, next morning seen upon the tonsils, and spread in a few hours over the pharynx into the larynx and trachea. Intubation necessary in a few hours; had never seen membrane spread so rapidly as in this child. Urine albuminous; membrane subsequently expelled from larynx and trachea in large casts, with profuse bloody expectoration. Complete recovery on the ninth day. The physician describes this as "the very worst case of diphtheria that has ever come under my notice." Five

thousand four hundred antitoxin units were given in four injections. He remarks: "My experiences in the past have been so very unfortunate that the advocates of antiseptics or therapeutics were a constant surprise to me. It has been my fate to have the most desperate cases unloaded upon my shoulders. I had been forced into the belief that the profession was absolutely powerless in the presence of true diphtheria; have lost case after case with tube in the larynx and calomel fumigations at work. Previous to antitoxin my only hope had become centered in nature and stimulants. In two years have not lost a single case, and surely I may be pardoned if I suffer from diphtheria-phobia in a sub-acute form, and use antitoxin sometimes unnecessarily."

Dr. L. L. Danforth, New York, states that during his twenty-two years of practice in New York he has seen many fatal cases of diphtheria, had used all kinds of remedies, mainly those of the homeopathic school, and while he had as much confidence in the latter as in anything else, he had seen so many deaths during the year past that he "hailed with delight the advent of antitoxin, and determined to use it." Reports five cases, all of a severe type. "The result in every case has been marvelous. I would not dare to treat a case now without antitoxin."

Dr. H. W. Berg, New York, reporting fourteen cases, says: "I have not yet ceased to be surprised at the recovery of some of these cases, which, in the light of my former experience with diphtheria treated without antitoxin, seemed to be irretrievably lost."

Dr. George McNaughton, Brooklyn, reports seventy-two laryngeal cases, with twenty-four deaths; sixty-seven of these were intubated, with twenty-one deaths. He states that he has kept no records of cases other than laryngeal ones, as these seemed the best test of the serum treatment. He believes that if the serum is used early, very many cases will not need operation for the relief of stenosis. "I would urge the use of antitoxin in all cases of croup in any patient who has an exudation upon the pharynx; would not wait for bacteriological confirmation of diagnosis, for in so doing valuable time is lost." Has noticed that the tube is coughed up more frequently in injected cases, and believed this due to the fact that the swelling of the tissues subsides at an earlier date.

Dr. D. C. Moriarta, Saratoga, reporting four cases, says that the first was a malignant one, and "I only used the remedy because I am health officer and was urged to do so, as the type of the disease was that from which I have seen recovery but once in eleven years." Boy five years old, four days ill when injected; great prostration, rapid breathing, and he was "practically gone." Nares filled, and tonsils and pharynx covered; severe nasal hemorrhage; cervical glands greatly swollen; heart's action very frequent and feeble; child unable to lie down. Behring's serum, twenty c.c., injected; in six hours evidently more comfortable; in eighteen hours decidedly improved; in twenty-four hours sitting up and feeling much better; in forty-eight hours all urgent symptoms gone and membrane loosening. Subsequently had nephritis which lasted six weeks, and multiple neuritis which persisted for three months, but ultimately recovered perfectly. "I send this report because it converted me. No unbiased person familiar with diphtheria could see such results as this and not feel there must be good in it."

Dr. F. M. Crandall, New York, sends report of a child seven years old. Membrane on the tonsils and in larynx, with croup for forty hours, when antitoxin was injected and intubation done. Progress of the disease had been rapid; semi-stupor and eyes half open; very feeble rapid pulse; intense toxæmia; general cyanosis. Both cyanosis and dyspnoea persisted after intubation, showing clearly the presence of membrane below the tube. Case regarded as "absolutely hopeless." The first change was seen in the disappearance of toxæmia, with improvement in the pulse, clearness of the mind, etc.; later a change in the local condition; large masses of membrane were expelled from the larynx and trachea, necessitating frequent removals of the tube. Tube finally removed in a week, with complete recovery.

Dr. Reynolds, Baltimore, mentions a case showing the danger of relying too implicitly upon the bacteriological diagnosis. Male, three years. Culture reported only staphylococcus and streptococcus, consequently injection delayed until the fifth day, when membrane covered tonsils, nose, and pharynx. Child died two days later. A sister subsequently contracted the disease, received antitoxin on the third day and recovered. The reporter would not wholly rely upon the culture test for diagnosis.

SUMMARY.

(1) The report includes returns from 615 physicians. Of this number more than 600 have pronounced themselves as strongly in favor of the serum treatment, the great majority being enthusiastic in its advocacy.

(2) The cases included have been drawn from localities widely separated from each other, so that any peculiarity of local conditions to which might be ascribed the favorable reports must be excluded.

(3) The report includes the record of every case returned except those in which the evidence of diphtheria was clearly questionable. It will be noted that doubtful cases which recovered have been excluded, while doubtful cases which were fatal have been included.

(4) No new cases of sudden death immediately after injection have been returned.

(5) The number of cases injected reasonably early in which the serum appeared not to influence the progress of the disease was but nineteen, these being made up of nine cases of somewhat doubtful diagnosis; four cases of diphtheria complicating measles, and three malignant cases in which the progress was so rapid that the cases had passed beyond any reasonable prospect of recovery before the serum was used. In two of these the serum was of uncertain strength and of doubtful value.

(6) The number of cases in which the patients appeared to have been made worse by serum were three, and among these there is only one new case in which the result may fairly be attributed to the injection.

(7) The general mortality in the 5,794 cases reported was 12.3 per cent. : excluding the cases moribund at the time of injection or dying within twenty-four hours, it was 8.8 per cent.

(8) The most striking improvement was seen in the cases injected during the first three days. Of 4,120 such cases the mortality was 7.3 per cent. : excluding cases moribund at the time of injection or dying within twenty-four hours, it was 4.8 per cent.

(9) The mortality of 1,448 cases injected on or after the fourth day was 27 per cent.

(10) The most convincing argument, and to the minds of the committee an absolutely unanswerable one, in favor of serum

therapy is found in the results obtained in the 1,256 laryngeal cases (membranous croup). In one-half of these recovery took place without operation, in a large proportion of which the symptoms of stenosis were severe. Of the 533 cases in which intubation was performed the mortality was 25.9 per cent., or less than half as great as has ever been reported by any other method of treatment.

(11) The proportion of cases of broncho-pneumonia—5.9 per cent.—is very small and in striking contrast to results published from hospital sources.

(12) As against the two or three instances in which the serum is believed to have acted unfavorably upon the heart might be cited a large number in which there was a distinct improvement in the heart's action after the serum was injected.

(13) There is very little, if any, evidence to show that nephritis was caused in any case by the injection of serum. The number of cases of genuine nephritis is remarkably small, the deaths from that source numbering but fifteen.

(14) The effect of the serum on the nervous system is less marked than upon any other part of the body; paralytic sequelæ being recorded in 9.7 per cent. of the cases, the reports going to show that the protection afforded by the serum is not great unless injections are made very early.

The committee feels that this has been such a responsible task that it has thought best to state the principle which has guided it in making up the returns. While it has endeavored to present the favorable results with judicial fairness, it has also tried to give equal or even greater prominence to cases unfavorable to antitoxin.

In conclusion, the committee desires in behalf of the Society to express its thanks to members of the profession who have co-operated so actively in this investigation, and to Dr. A. R. Guerard for the preparation of the statistical tables.

THE ACTION OF THE SOCIETY UPON THE REPORT.

At the close of its presentation, the Society voted to accept the report of the committee, and after a full discussion it was decided to embody its conclusions in the following resolutions:

(1) *Dosage*.—For a child over two years old, the dosage of antitoxin should be in all laryngeal cases with stenosis, and in

all other severe cases, 1500 to 2000 units for the first injection, to be repeated in from eighteen to twenty-four hours if there is no improvement; a third dose after a similar interval if necessary. For severe cases in children under two years, and for mild cases over that age, the initial dose should be 1000 units, to be repeated as above if necessary; a second dose is not usually required. The dosage should always be estimated in antitoxin units and not of the amount of serum.

(2) *Quality of Antitoxin.*—The most concentrated strength of an absolutely reliable preparation.

(3) *Time of Administration.*—Antitoxin should be administered as early as possible on a clinical diagnosis, not waiting for a bacteriological culture. However late the first observation is made, an injection should be given unless the progress of the case is favorable and satisfactory.

The committee was appointed to continue its work for another year, and was requested to issue another circular asking for the further co-operation of the profession, this circular to be sent out as soon as possible, in order that physicians may record their cases as they occur through the coming year.

Pan-American Medical Congress.—Professor Dr. Don Francisco Bastillos, Calle de Tacuba No. 7, Ciudad de Mexico D. F. Republica Mexicana, has been elected Treasurer of the second Pan-American Medical Congress, to be held in the City of Mexico, beginning the 16th of November. All members residing in the United States and Canada, and others who contemplate attending, should forward the registration fee, \$5.00, gold, to him at once, and notify Dr. C. A. L. Reed, Cincinnati.

The American Microscopical Society will hold its nineteenth annual meeting in the new Carnegie Library Building, Pittsburg, Pa., Tuesday, Wednesday, Thursday and Friday, August 18, 19, 20 and 21, 1896. A hearty welcome will be extended to all interested in the microscopical sciences. Applications for membership and titles of papers to be read at the meeting should be addressed to A. Clifford Mercer, M.D., president, Syracuse, N. Y.; or to Wm. C. Krauss, M.D., secretary, 382 Virginia Street, Buffalo, N. Y.

OCCASIONAL PERISCOPE OF ANTENATAL PATHOLOGY. By J. W. BALLANTYNE, M.D., Edinburgh.

Typhoid Fever in the Fetus.—In the *Gazette hebdomadaire de médecine* for February 23, 1896, Dr. G. Etienne, of Nancy, considers the question of the occurrence of typhoid fever in utero. He believes that whilst some mothers suffering from typhoid may abort on account of the high temperature or of the hemorrhagic endometritis, in most cases the pregnancy comes to an end because the fetus has died in utero of typhoid fever. As far back as 1841 Manzoni found the lesions of typhoid in the intestine of a prematurely-born infant which lived only a few minutes. Of recent years the occurrence of fetal typhoid has been bacteriologically proven by Minati, Freund, Levy, and others. Dr. Etienne reports a case, under the care of Professor Spillmann, in which a young girl of eighteen took typhoid fever and aborted on the twenty-ninth day; the puerperium was normal and she recovered quite well. The autopsy of the fetus took place eight hours after birth; all the organs were healthy; the spleen was not enlarged, the intestine showed no changes, and there were no placental lesions. Blood was taken from the heart and placenta, and this as well as splenic and hepatic pulp was placed in tubes containing peptonized jelly. The result was the appearance of numerous colonies of bacilli, which, when grown on gelatine or potato gave all the characteristic reactions of Eberth's bacillus. There was, therefore, true fetal typhoid with the passage of the above-named bacillus into the blood of the fetus. Further there existed a true fetal typhoid septicemia without any of the intestinal and splenic lesions characteristic of that fever in extra-uterine life. Dr. Etienne believes in the existence of two types of fetal typhoid—one with and the other without the characteristic intestinal lesions, the former being doubtless much the rarer. Probably fetal typhoid is usually fatal on account of the absence of the localization of the infection to the intestine; it is commonly a general infection, septicemic from the first.

Measles Contracted in Utero.—Dr. G. Fieux, in a paper on measles and pregnancy (*Rougeole et grossesse*) in the *Archives cliniques de Bordeaux*, p. 188, April, 1896, relates a case which occurred in the Maternity at Pellegrin, in which a primipara

twenty-three years of age, and with the eruption of measles just out, was safely delivered of a female infant. The mother made a satisfactory recovery. The infant at birth showed little vigor and was immediately placed in the convalesce. It refused the breast and vomited the milk with which it was artificially fed. The body temperature was low and continued to fall, and on the seventh day of life the child had lost 750 grammes of its birth weight. At the same time edema of the legs and abdominal wall was noted and the infant's life was despaired of. On the eighth day, however, the distinctive rash of measles came out on the face, back and chest; two days later this began to fade and was followed by a slight furfuraceous desquamation, and the edema disappeared. It will be noted that uterine contractions did not in this case set in during the stage of invasion, but only after the appearance of the exanthem. With regard to the infant it is evident that it contracted the disease in utero, for eight days is too short a period for its incubation. Further, it is very noteworthy that in this child the disorder was unaccompanied by the catarrhal conditions of the respiratory passages which are so characteristic of measles in children and adults; their place seemed to be taken by the gastric troubles and athresia, with the accompanying fall in the temperature. Were it not that the author distinctly states that the rash on the infant was clearly papular, it might be thought that the case was really only one of the almost physiological erythema neonatorum and its consequent desquamation.

Polymastia.—The possession of one or more supernumerary mammary glands is an anomaly which always attracts a large amount of interest on account of its close connection with the subject of atavism. Dr. S. Patellani (*Centralblatt für Gynäkologie*, No. 17, April 25, 1896) has recently reported the case of a woman who bore an accessory pigmented nipple in the sixth intercostal space below the right breast and five cm. distant from the normal nipple of this side. She was a tripara who had been healthy up to the time of her marriage, but she was now the subject of osteomalacia, which had led to marked pelvic contraction; she also suffered from nephritis. Her children were normally formed, and there was no family history of deformities on her mother's side. Her father also was normal, but as he had been a foundling nothing was known of his antecedents.

There was no history of plural births. The supernumerary nipple was a conical projection standing five mm. above the surrounding skin surface; it had the same color and appearance as the two physiological nipples. A small depression was visible at its apex, from which one could express a drop of whitish substance, which, when microscopically examined, showed epithelial cells containing large and small oil droplets. At the base of the nipple one could feel an irregular resistance, and follow it easily as far as the glandular part of the right (normal) breast. One got the sensation that one or several of the excretory ducts of the right mamma passed to the supernumerary nipple.

After remarking on the absence of any family history of twins in this case, Patellani goes on to point out that for these cases two explanations are possible: in some instances the breasts and nipples are truly supernumerary, atavistic; in others they are only apparently so. In the latter group he places the above recorded case.

Singular Congenital Anomaly of the Right Testicle.—Dr. Francesco Parona figures a remarkable case of a man with a large inguinal hernia, in the right side of whose scrotum was found not one testicular body, but a number of swellings (*Il Policlinico*, No. 9, May, 1896). At first these were thought to be fibrous tumors or cysts; but on operation it was found that there was a flattened growth at the lower part of the scrotum, the epididymis, and that above it lay two smaller rounded bodies composed of testicular substance. The left testicle was normal in size and form. Dr. Parona has not been able to find a similar case in literature. It cannot be regarded as an instance of hypertrophy, synorchidism or polyorchidism of the testicle, although it most closely resembles the last named. He believes that all such congenital anomalies of this organ are to be explained by incomplete fusion or development of its component parts, a supposition strongly supported by what is known of the embryonic development of it from parts at first quite independent.

Cyclopia.—At a meeting of the Berlin Medical Society (*Wiener klinische Rundschau*, No. 16, 1896) Lövinsohn demonstrated a cyclops fetus, the offspring of a woman thirty-six years of age, who had previously given birth to five normal infants. In the neighborhood of the root of the nose was a triangular cavity in which could be recognized the anlagen of both eyes,

with an interval of about one-half centimetre between them. Two firm folds of skin bounded this cavity inferiorly; these were the anlagen of the lower eyelids. There was no trace of any anlage of the nose. In the neighborhood of the anterior fontanelle was a tumor larger than the fist, connected with the cranial cavity.

Surgical Use of Cocaine.—The following is from the *Codex Medicus*:

1. The use of cocaine should not be abandoned because its irrational employment has produced deleterious results.
2. Always make a thorough physical examination of the patient before injecting the drug.
3. It should not be used in cases showing organic diseases of the brain, heart, lungs or kidneys, or in persons of neurotic diathesis.
4. Children bear it fully as well as adults.
5. The patient should always be placed in a recumbent position prior to its employment.
6. Constriction should be used whenever possible to limit the action of the drug to desired area.
7. Use a freshly prepared solution for each case.
8. Distilled water should always be employed, to which phenic, salicylic or boric acid should be added.
9. A two per cent. solution has a better effect, and is safer than solutions of greater strength.
10. Never inject a larger quantity than one and one-eighth grains when no constriction is used.
11. About the head, face and neck, one-third of a grain should never be exceeded.
12. When constriction is possible, the dose may be as large as two grains.
13. Every slight physiological effect is not necessarily to be taken as cause for alarm.
14. Cocaine does have effect upon inflamed tissues.
15. In case alarming symptoms occur, use amyl nitrite, strychnine, digitalis, ether or ammonia.

MUCOSITIS VS. CATARRH AS NAMES FOR INFLAMMATION OF THE
MUCOUS MEMBRANE. By THOS. F. RUMBOLD, M.D., St. Louis.

There are a large number of obsolete names of diseases that at one time seemed to fill the requirements of the medical profession, but as more exact knowledge of disease was attained they were displaced by more exact terms. In one respect this has been the fate of the word *catarrh*.

The Former and Present Use of the Word Catarrh.—It should be remembered that the word *catarrh* became most popular about thirty-five to forty-five years ago. It was then employed to describe a peculiar condition of the mucous membrane of the lungs, stomach, bowels, etc., the distinguishing symptom of this condition being an excessive flow of abnormal mucous. Invariably the more severe the disease the more excessive the flow. It was therefore proper to call all excessive discharges of all mucous membranes a *catarrh*. Apparently a better term could not be made, and Nemeier, in his popular works, used this word and made it popular. It is well known that the literature of the medical and surgical treatment of nasal diseases—which was considered the most unimportant of any of the diseases then commented upon in the various works on the practice of medicine—did not exceed 2,000 words at that time. Of course a running of the secretion from the nose was called a *catarrh* of the nose, and to those who were ill informed it led to no confusion, because, to them, if there was no running of the nose there was no disease. For three or four decades after this a cold in the nasal passages was of no significance. Under these circumstances nothing else could be expected than that the word *catarrh* should remain as a descriptive name for nasal inflammation.

At the present time the same diseased condition of the lungs, stomach, bowels, etc., is but rarely called a *catarrh*—more exact names are given; while a diseased condition of the nose and ears monopolizes the word *catarrh* almost exclusively—a disease whose increased severity, unlike that of a disease of the lungs, stomach, bowels, etc., prevents the flow of abnormal mucous. In other words, the greater the disease of the lungs, stomach, bowels, etc., the greater the flow, while on the other hand the more severe the nasal disease the less the flow, showing plainly that there are two entirely different pathological conditions, al-

though all those membranes *at times* exhibited a tendency to a catarrh.

The Word Catarrh Misleading.—The term *catarrh* is most certainly in the category of ambiguous names, and is misleading. This has long been manifest to many of the medical profession. The word means “flowing” or “running down,” indicating that the disease always manifests a flowing condition, which is very far from being correct. When an inflammation of a mucous membrane is in a certain stage there is a profuse *flow*, that is, a profuse *catarrh*. Now, if this membrane was always in this stage, as is that of the lungs, stomach, bowels, etc., when affected with catarrh, the word *catarrh* would be so descriptive of its condition that, taken with the length of time that it has been used by the profession, it would probably be retained. But when the disease is *increased* so that the increased heat causes evaporation of the watery portion of the secretion, resulting in inspissation, there will be *no flow*, or, to use the other word, *no catarrh*, which is the very opposite of the fact. People sometimes say they have a dry catarrh, as though one could have a dry *flow*.

Seeking a Name.—For many years I have been dissatisfied with the term “catarrh” as employed to describe an inflammation of the nasal mucous membrane.

In 1868 I coined, with the aid of Dr. Kukelhan, the term “rhinitis.” This term, while far more specific than “nasal catarrh,” leads one to think that the nose itself is inflamed, not alone the mucous membrane lining its passages. This was the objection made to the new term in the St. Louis Medical Society when I first used the word *rhinitis* in the title of a paper I then read (June 13, 1869), and afterward published, in August, 1869, in the *St. Louis Medical Reporter*. I did not long maintain that I was the first to originate the term *rhinitis*, for I found that my personal friend, Dr. Geo. M. Beard, in his translation of Tobold on the Throat, first coined the word in 1867. His preface to this work is dated December, 1867, and certainly was written some time after his work on the book was completed.

As not only the integument but the *whole* substance of the nose is very frequently inflamed, the term *rhinitis* should be confined to that disease.

Most certainly the name of a disease should not be mislead-

ing. If it is misleading, for this reason alone it should be discarded as soon as possible. A name for a disease should give all possible information. It should, if possible, be short, be specific, and inform the reader not only what organ is affected but the part of the organ, and what is the nature of the disease that affects it.

It is noticeable that in giving an appellation to a disease, authors have oftentimes endeavored to indicate the nature of the complaint by selecting the most prominent symptom or peculiarity as a name for it. Thus some names point to the part of the body affected, as cerebro-spinal meningitis, enteritis, ethmoiditis, sphenoiditis, etc.; some to the appearance of the patient while under the influence of the disease, as yellow fever, scarlet fever, spotted fever, etc.; some to the supposed cause of the ailment, as malarial fever, bilious fever, hay fever, etc.; and still others to the time of the year in which the attacks occur, as summer catarrh, winter catarrh, winter fever, etc. If each of these names properly indicates what it seems to, give all the information that a name can, and is not deceptive or ambiguous, then it might be very properly retained; but if any of them indicate that a certain prominent fact or distinguishing feature of the disease is constantly present when such is not the case, then most certainly the misleading name should be discarded. Its retention will tend to a misunderstanding of the condition of the diseased parts and will be very liable to lead to an erroneous diagnosis, and thus be the cause of an improper course of treatment and a failure to perform a cure. To-day it leads many to treat the complaint with astringents—liquid and powder—for the sole purpose of checking the “flow,” as though the “flow” was the sole symptom that was to be made to disappear, and when the “flow” disappears they are satisfied and call their patient cured.

Mucositis.—This is the name I propose, for inflammation of the mucous membrane. The word is taken from the noun *mucosa*, a generic name for the mucous membrane; *itis* is added to the letters *mucos* just as *ity* is added to *mucos* to make the word *mucosity*.

While the term *mucositis* very plainly indicates an inflammation of a mucous membrane, the membrane diseased is not located, but by prefixing the term *naso*, thus forming the full word *naso-mucositis*, it most plainly indicates that the disease is

an inflammation of the mucous membrane of the nasal passages. *Naso-mucositis* acuta, and *naso-mucositis* chronica, require no explanation, nor do *oto-mucositis*, or *pharyngo-mucositis*, or *laryngo-mucositis*, or *aryteno-mucositis*, or *tracheo-mucositis*, or *broncho-mucositis*, or *enero-mucositis*, or *cystic-mucositis*, etc., etc. It is seen that little or no explanation is required to impart complete information concerning the locality that is diseased, or the kind of disease. These facts seem to justify me in coining these terms.

Case of Injury to the Occipital Lobe, followed by Hemipopia.—Mey (*Centralbt. f. Inn. Med.*) reports the case of a healthy youth, a mason, aged 16, who fell a distance of about two meters, and struck the back of his head against the point of a mason's trowel, which caused a compound depressed fracture in the position of the right lateral posterior fontanelle. On removal of the depressed fragments a jet of dark blood spurted from a wound, about half cm. long, of the lateral sinus. The bleeding being controlled, the brain substance below the seat of fracture was examined, and found considerably bruised. The wound was tamponed, and a compress bandage applied, which was not removed for a week, when the wound presented a healthy appearance. Healing was complete about six weeks after the accident. The general condition of the patient after the accident was good, and he rapidly recovered from the excessive loss of blood. He, however, complained of severe headache and of defective sight and hearing. The hearing improved very soon, and two weeks after the accident it was as good as ever, but the sight remained imperfect. He could read with difficulty only for a few minutes, and even large objects were indistinct. This was the case especially with anything situated at his left. Examination by an oculist revealed right-sided hemianopsia (*i. e.*, the left half of each retina was insensitive to visual impressions). The right half of the field of vision was also concentrically diminished. Fundi were normal. After a few months the right halves returned to the normal, but the left remained permanently blind. The patient gradually accustomed himself to his defect of vision, and is now able to read fairly well again.

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Terms, \$1.00 per annum, in advance. Foreign Countries
within the Postal Union, \$1.25.

All communications should be addressed to Box 626, St. Louis.

Editorial.

THE TORNADO.

Every one or nearly every one in whose hands a newspaper comes has read of the swath which was cut in St. Louis by the tornado. Not only were a large number of lives sacrificed, but many were maimed and crippled. * One of the horrors of the situation was the almost complete destruction of the City Hospital, not to mention the damage done to the Female Hospital and Poor House. The City Hospital was the greatest sufferer, and it is a matter of wonderment that such a complete wreck, followed by the drenching rain on the unprotected hundreds of unfortunate patients, did not result in a frightful mortality. Too much praise cannot be accorded the superintendent, Dr. Sutter, and his able and efficient corps of assistants for their more than indefatigable labor and good work under the circumstances. The terror which reigned among the patients can better be imagined than described. One patient, an old woman, dropped dead of fright, and many others have been seriously damaged by the shock occasioned as a result of the hurricane. One feature which it would never do to omit is the promptness with which Health Commissioner Starkloff obtained quarters in which to establish the hospital temporarily. The Convent of the Good

Shepherd was put in shape in a few hours and the greater part of the patients transferred there. The acute surgical cases were promptly taken care of by the Alexian Brothers and St. John's Hospitals, their medical superintendents promptly offering accommodations to the Health Commissioner.

So far as the Female Hospital and the Poor House are concerned, as only comparatively small portions were destroyed, it was not such a difficult matter to manage and get along comparatively comfortably, albeit somewhat crowded. The Insane Asylum also suffered some little damage which will necessitate repairs needed long ago.

The damage done to the city's hospitals, whilst most serious and to be deplored, is in one respect a blessing in disguise. We are now assured that a new City Hospital will be built upon the most approved modern plans, and it is to be hoped that too much economy will not be exercised. It is estimated that a half million dollars will be sufficient, but no doubt it will be found that this amount will fall very short of the actual necessities when the number of patients who must be provided for is taken into consideration. However, as the intention is to build the institution on the pavilion plan, it can be so managed that new pavilions may be added as the necessity for them arises.

The losses incurred by the members of the medical profession of St. Louis, as a direct result of the storm, were large. Not to mention signs blown away, buggies smashed to pieces, and other small matters of the sort, it may be sufficient to state the total destruction of the magnificent residences of Drs. Hugo Starkloff and P. J. Lingfelder. The medical profession in general, and many in particular, have suffered rather severely, but have kept up bravely and have not lost heart amidst the general trouble and consternation produced by the storm. This trait, however, is one which has been characteristic of every one in the city, and the work of rebuilding in general has been going on as rapidly as was possible in view of the enormous demand made for artisans of all classes and in all trades.

The number of those directly killed in St. Louis was 128; the number of those wounded, maimed, and otherwise hurt, will never be known. In East St. Louis, directly across the Mississippi River, the list of casualties was almost as great. The doctors on both sides have been kept busy in certain districts, and

for years to come patients will complain of some of the after-effects of the Great Storm.

ANTE-NATAL PATHOLOGY.

As is well known, pathology has been making great strides in recent years, and the study devoted to it to-day is gradually becoming in proportion to its importance. Among the interesting chapters of pathology is without doubt ante-natal pathology and teratology, and, strange as it may appear, but little serious work has been done in the former. Those who have had occasion to study but a very small portion of ante-natal pathology have found not only how interesting it is, but how important a branch it is as well. Some good work has been done in this, it is true; but it has all been the result of sporadic efforts, and no one attempted a complete work on the subject until Dr. John W. Ballantyne, of Edinburgh, issued the first volume of his work on the subject. Up to the present two volumes have appeared, and we are hopeful that he will receive enough encouragement to publish succeeding volumes. For two years he published *Teratology*, a quarterly journal devoted to the subject, but he met with so little encouragement that the enterprise was abandoned. We cannot understand why there should be such a general apathy upon so interesting a subject, more particularly among men who call themselves scientific. It is certainly far from creditable, and reflects very little honor upon investigators who plume themselves upon being pathologists. We have been surprised that such a state of affairs should exist, and if any of our efforts can conduce to a change we shall certainly not spare them. It is time that the profession should be educated in this matter.

We desire to announce to our readers that, beginning with this number, the JOURNAL will contain occasional reports on ante-natal pathology contributed by Dr. Ballantyne, the greatest living authority on the subject. We are sure that his reports will be enjoyed, and they certainly should be appreciated in view of the fact that they are prepared by so competent and critical a writer. We also hope that our contributors will feel encouraged to send in original contributions, observations and researches on the subject, and thus aid in the good work of establishing ante-natal pathology in the position which it should legitimately occupy.

Medical Progress.

THERAPEUTICS.

The Treatment of Gastro-enteritis.—A little more than a year ago Dr. Drews, a specialist for diseases of children in Hamburg, reported a series of fifty-five cases of diarrheal affections of various kinds in which he had derived surprisingly successful results from the use of tannigen, the new intestinal astringent. Since then he has continued his experiments, and these are completely confirmatory of his previous observations, so that he is led to regard tannigen as the most agreeable and promptly effective remedy in the treatment of acute, subacute and chronic enteritis. The earlier the remedy was administered the more rapid its effect, the vomiting being the first symptom to disappear. It would seem, therefore, as if it exerts a favorable influence upon the mucous membrane of the stomach. After the third or fourth dose of 0.2 to 0.5 gm. to children, the evacuations assumed a firmer consistence, and on the second or third day there was a decrease in the number of stools. While formerly, however, the author continued the use of the drug after subsidence of the catarrhal symptoms in order to prevent recurrences, he has found that by increasing the dose to 0.3 to 0.5 gm. three times daily to infants under one year, and to 0.5 to 1.0 in older children, a cure was more rapidly produced and was more permanent. In the acute and chronic enteritis of adults, in colitis and especially in the diarrhea of phthisical persons, it also acted more promptly and efficiently than any other remedy. In two cases of typhoid fever the profuse diarrhea was rapidly relieved and convalescence was unusually prompt. In a case of diarrhea from auto-intoxication with numerous profuse evacuations and violent tenesmus and abdominal pains, tannigen relieved the latter after the second dose, and the diarrhea ceased after the third or fourth dose. As the remedy is perfectly tasteless and odorless, it can be readily administered to children and adults in water, milk, soup, or bread and butter, and never provoked vomiting or any other after-effects. Another marked advantage is that it is completely innocuous, and is well tolerated by infants at the breast. Encouraging results have also been obtained by Drews from tannigen in catarrhal inflammations of

the nose and throat, and it may prove a useful astringent in these conditions.

Ulcer of the Stomach Treated with Protonuclein.—Dr. N. H. Kirby says (*Atlantic Med. Weekly*): My experience with protonuclein has been limited, but in all the cases in which I have used it I have been quite successful, especially so in the one which is reported below.

Mr. J., aged twenty-four, farmer by occupation, became one of my patients some two years ago, when he presented the following symptoms. For a long time he had been troubled with inability to retain food. There would be severe pain in the stomach, which would be increased by the presence of food and by pressure over region of stomach. This pain would be relieved by vomiting, sometimes there would be vomiting of blood; bowels constipated, tongue covered with thick coating. I tried several remedies at that time, such as pepsin, bismuth, nitrate of silver, aromatic powder, Carlsbad salts, mustard over epigastrium, etc., together with a strict diet. This course of treatment was followed by temporary improvement, but no real improvement. He finally left me utterly discouraged and came under the care of other physicians but with apparently no better success. About two months ago he returned to me, very much reduced in flesh, his weight having dropped from 160, his normal weight at the beginning of the trouble, to 124 pounds, and every symptom increased in its severity, and so weak and exhausted was he that he was unable to follow his usual occupation.

I straightway put him upon a strict diet again, and gave him protonuclein, grs. iij., every four hours, to be taken religiously. From the beginning of the administration of protonuclein he began to improve, and gradually to retain food. The pain began to diminish, and he gained fully ten pounds in weight within the first two weeks. His appetite and strength returned, and in fact there was rapid and permanent improvement. At the present time of writing he has ceased taking protonuclein, and when I last saw him he was apparently well.

Ferratin: Iron Tonic and Food.—J. S. Perekhan reviews (*Chicago Med. Recorder*) the literature on ferratin, quoting Schmiedeberg, Germain See, Dujardin-Beaumetz, Marfori, Jaquet, Fackler, Einhorn, and others, and then cites a case of anemia in his own practice, "because the improvement under the

use of ferratin was so striking as to merit special mention." Patient, a girl of 17, became anemic after an attack of grippe, lost her appetite, etc.; condition on Nov. 15th as follows: face pale, of waxy color, lips and conjunctiva almost white; headaches, insomnia, constipation, shortness of breath, bad appetite, etc. Half-gramme doses three times daily, with hygienic regulations, caused improvement after first week, and gradually her appetite returned, headaches and insomnia disappeared, red color was restored to lips and face, and within five weeks the blood corpuscle count showed an increase from 2,100,000 to 4,150,000 per ccm. Author concludes that "ferratin can be safely recommended as a hamatinic remedy, with suitable diet, hygiene and exercise not to be neglected."

The Action of Lactophenin.—Senfft reports (*Wiener Med. Presse*, 1896, No. 50) a large experience with this drug in the treatment of children. He has used it as an antipyretic in pneumonia, bronchitis, typhoid fever and diphtheria. It reduces the temperature promptly, and he reports no untoward effect on the stomach or depressing effect on the heart. Because of the last-named advantage, he has substituted it largely for other antipyretics for children. To infants of one year he gives three-fourths of a grain; at four years he gives one-fifth of the adult dose.—*Archives of Pediatrics*, June, 1896.

DISEASES OF WOMEN AND CHILDREN.

Summer Diseases of Childhood.—Aside from extreme heat, there is no one factor, perhaps, which contributes so largely to the mortality from these diseases as improper feeding, and as long as there are poverty-stricken parents, ignorant mothers, weakly children, hereditary predispositions—in fact, as long as there are babies to be reared subject to these conditions—there can be nothing else expected other than a high death rate among these children.

It is an easy matter in almost all the so-called cases of cholera infantum, if their history were carefully inquired into, to find that in nearly every instance the starting-point of the trouble could be clearly traced to an attack of acute indigestion.

In such cases the stomach is overtaxed and there is increased irritability of the nervous system, which is already showing signs of exhaustion from the effect of high temperature, humid atmosphere, and other depressing influences of the summer season.

The indications to be met in these cases are to remove the cause and allay irritation. To this end it is best to correct the defective secretion by giving calomel, $\frac{1}{10}$ gr.; bicarb. soda, $\frac{1}{2}$ gr.; sac. lac., 1 gr., every two hours until the character of the alvine discharges is changed in color or consistency.

When this has been satisfactorily accomplished, it is then necessary to allay irritability and restore normal gastro-intestinal secretions, which is best brought about by the following: malto-pepsin (Tilden's), 1 gr.; bismuth salicylate (Merk's), 2 grs.; given every half hour until vomiting ceases; then the time may be prolonged to two or three hours, as required.

DISEASES OF THE NOSE, THROAT AND EARS.

Local Anesthesia.—

R Chloroform.....	10 parts.
Ether.....	15 parts.
Menthol	1 part.

The anesthesia resulting from the application lasts about five minutes.—*Le Gerant and E. Pierre.*

Hay Fever.—The new theory advanced by Dr. Strangways claims that hay fever is caused by a toxin generated from pollen by a fermentative process in an alkaline solution. It is possible that this toxin may be generated from other substances than pollen. Pollen may simply supply the microbe that generates the toxin from substances belonging to the nares of hay fever subjects, and it is possible that other substances than pollen may convey such a microbe into the nare. This toxin produces a vasomotor paresis with paroxysms of sneezing. Some pathological lesions of the nose may predispose to hay fever by causing altered secretions suitable for the fermentative process, and by causing a sluggish circulation and thus lessening the normal inhibitory powers. It seems possible that in pollen there are certain protoplasmic elements which in warm alkaline solutions change into the toxin causing hay fever.—*Physician and Surgeon.*

Foreign Body in the Ear.—Büke records a case of fatal meningitis, set up by unskillful efforts at removal of a foreign substance from the ear of a child three and one-half years old.—*Archiv. f. Ohrenh.*, Bd. 40, p. 56.

If the average medical man would only remember that a simple substance which a child can slip into the external ear could be

syringed out by anybody, how much trouble would be saved! Gentle measures always succeed, and rough ones never, while the latter always do harm and often cause death.

Objective Noise in the Ear.—Tomka reports the observations of an objective noise in the ear of a boy of six years, due, he thinks, to the contraction of the tensor veli muscle.—*Archiv f. Ohrenh.*, Bd. 40, p. 57.

A Whistling Larynx.—A young woman of Waterbury, Conn., writes Dr. Mungar in the *Medical Record* of March 28th, can whistle without the use of the lips, tongue, pharynx, soft or hard palate or cheeks. This feat can be accomplished during laryngoscopic examination, which shows clearly the mechanism of the act. The anterior three-fourths of the vocal cords are approximated, while a triangular aperture is left between the posterior fourth, through which the expired air escapes with a whistling sound. The young lady's range is an octave and-a-half. She ought to be able to whistle in company and enjoy watching her companions try to find the culprit.—*Boston Med. and Surg. Jour.*

Curious Effect of the Imagination.—*La France Médicale* quotes the following story from the *Independencia Medica*: Two travelers met in a hotel where there was but one vacant room left. As there was no alternative, they agreed to share this room, and the one bed which it contained.

In the middle of the night one of them wakened in great distress, crying out: "Air! air! I am smothering!"

His companion rose hastily and hunted for the matches, but he could not find any. And the room was so absolutely dark that he could not find the window either. The sick man continued to cry: "Air! I am smothering! break the glass if you cannot open the window!"

The other had been desperately groping around in the dark, but at last he felt the glass, and with his fist he incontinently smashed a pane. His asthmatic companion found himself relieved, and after expressing his gratitude he went to sleep again.

In the morning our travelers were stupefied to see that the windows of the room were intact; but the panes of glass in the door of the book-case had been smashed to pieces!

F. M. R.

Society Proceedings.

AMERICAN PEDIATRIC SOCIETY.

Eighth Annual Meeting.

Held at Montreal, Canada, May 25th, 26th, 27th, 1896.

JOSEPH O'DWYER, M.D., President.

Owing to the necessary absence of the President, Dr. James C. Wilson, the First Vice-President, presided. The first session was opened by the reading of the President's address, entitled "The Evolution of Intubation." This was prepared at the request of the Council, and was a paper of the greatest interest, as it described the labors which Dr. O'Dwyer pursued with untiring devotion to a great idea through five long years. A bivalve tube was first used, but after three years of continuous effort it was abandoned and experiments were begun with the solid tube. The paper described the various experiments made, with various alternating failure and success, until at last obstacle after obstacle was overcome and imperfection after imperfection was removed. As a result of this patient toil, perfected instruments were given to the profession—a very rare thing in the history of medicine. The various steps taken in attaining this great result were narrated with the simplicity and modesty which has always characterized the literary work of Dr. O'Dwyer. A complete set of instruments, showing the evolution of intubation from the first bivalve tube to the present perfected model, proved of the utmost interest.

The first paper was read by Dr. George N. Acker, of Washington, on "Gangrene of the Tongue Following Typhoid Fever." Dr. J. H. Fruitnight, of New York, read a paper on "Malignant Endocarditis" and presented a specimen. As the bacteriological examination showed that the condition was due to the presence of streptococci, the author advocated the use of streptococcus antitoxin serum in such cases.

At the second session, Dr. A. H. Wentworth, of Boston, read a most exhaustive paper on "Lumbar Puncture," and reported twenty-nine cases. He affirmed that while normal cerebrospinal fluid contains neither fibrin nor cells, and is clear, it is always cloudy in cases of meningitis, though the cloudiness is sometimes very slight. This is caused by cells, the character of

the cells differing with the variety of meningitis. The operation, the author believes, offers a valuable means of diagnosis. For such purposes, however, the microscope is essential, and inoculation experiments are also of value. This was followed by a paper on "Tapping the Vertebral Canal," with remarks on local treatment for meningitis, by Dr. Augustus Caillé, of New York. He reported twenty-one cases, and believed that a study of the cases reported up to the present time would convince the most skeptical that Quinck's puncture is of positive value as a method of diagnosis. It is simple and usually easy of performance. In two cases Dr. Caillé injected antiseptics into the subarachnoid space, but without material results. He proposes in some future case to lay bare the dura by removing a button of bone, and irrigating from a lumbar puncture upwards through an opening in the dura. Dr. C. G. Jennings, of Detroit, also read a valuable paper on "Lumbar Puncture," and reported practical experience. Dr. Floyd M. Crandall, of New York, read a paper on the "Occurrence of Influenza in Children," and reported local epidemics. Dr. Samuel S. Adams, of Washington, reported an extremely interesting case of temporary insanity following typhoid fever. Dr. Frederick A. Packard, of Philadelphia, reported a case of endothelioma of the brain with atrophy of the paralyzed members. Dr. Henry Jackson, of Boston, read a paper on "Nasal Feeding in Diphtheria," in which he advocated feeding by means of a soft tube passed through the nose into the esophagus in certain cases of diphtheria. As this can be done with ease, it does much by preventing exhaustion of the child's strength. Dr. William Osler, of Baltimore, read a paper on the "Classification of Tics or Habit Movements." He made the following classification: 1. Simple tic or habit spasm. 2. Tics with superadded psychical phenomena; *maladie de la tic convulsif*, or Gilles de la Tourette's disease. 3. Complex co-ordinate tics. 4. Tic psychique. An imperative idea is the psychical equivalent of, and has an origin similar to, the motor tic. Each of these subdivisions was elaborated and illustrated by practical examples.

The third session was devoted to the antitoxin treatment of diphtheria. The report of the Collective Investigation Committee of the Society upon the results of the antitoxin treatment in private practice was read (see page 19). Over 5,000 cases

were reported, the results being, on the whole, more favorable than any extended reports that have thus far appeared. A complete report will soon be published in full. Dr. P. A. Packard reported favorable results of the antitoxin treatment, and Dr. S. S. Adams read a paper on the "Comparative Results of the Treatment of Diphtheria with and without Antitoxin, in the District of Columbia." It appears that the death rate from diphtheria in the District of Columbia since the appearance of antitoxin has materially diminished. Dr. A. Seibert, of New York, read a paper on "Sudden Death after Antitoxin Injections." He reported a series of striking experiments which showed that the injection into animals of carbolic acid, even in very weak solution, was constantly followed by most characteristic spasmodic movements. Another series of experiments was made to determine the effects of sub-cutaneous injections of air. The results seem to show that antitoxin can contain but infinitesimal quantities of carbolic acid. They also render the proposition reasonable that the few sudden deaths reported after the injection of antitoxin might be due to the injection, at the same time, of air. The general discussion elicited by these papers was extremely interesting and showed a unanimous and very strong sentiment in favor of antitoxin.

At the fourth session Dr. Rowland G. Freeman, of New York, read a paper on "Low Temperature Pasteurization of Milk at about 67° C." He proved that this temperature was sufficient to kill numerous pathogenic bacteria and various atmospheric bacteria, and referred to the importance of avoiding unnecessary heat in the preparation of milk for infants' use. He presented a new apparatus of simple construction designed to Pasteurize milk at 67° C. Dr. Charles W. Townsend, Boston, reported several cases of thigh-friction in infants. Dr. William P. Northrup, of New York, reported a most interesting case of apparently relapsing cerebro-spinal meningitis, followed by death and autopsy, which elicited a warm discussion on the pathology and diagnosis of meningitis. Dr. Henry Lafleur, of Montreal, reported a case of insolation in an infant of thirteen months. Dr. A. D. Blackader, of Montreal, reported a case of enlargement of the liver in a young child with symptoms closely resembling typhoid fever. Papers were read by title by Drs. B. K. Ratchford, of Cincinnati; F. Forchheimer, of Cincinnati; Irving M. Snow, of Buffalo; and Henry D. Chapin, of New York.

The last session was devoted to the presentation of pathological specimens, specimens being presented by Drs. Rotch, Holt, Caillé, Adams, Packard, Acker, Freeman, and Townsend.

The following officers were elected for the coming year:

President Dr. Samuel S. Adams, Washington, D. C.
First Vice-President..... Dr. W. S. Christopher, Chicago.
Second Vice-President.. Dr. Charles W. Putnam, Boston.
Secretary Dr. Frederick A. Packard, Philadelphia.
Treasurer Dr. Charles W. Townsend, Boston.
Recorder and Editor..... Dr. Floyd M. Crandall, New York.
Member of Council..... Dr. William Osler, Baltimore.
Chairman of Council..... Dr. William P. Northrup, New York.

Glaucomatous Atrophy of Optic Discs in Syphilitic Patients Simulating Tabes.—Dr. Galezowski has addressed the Academy of Medicine of Paris on the above subject, as is reported in *Annales d'Oculistique*. Certain varieties of glaucomatous atrophy of the discs are frequently confused with ataxic atrophies. The following signs may help to avoid this error. If the affection is glaucomatous, then: 1. The disc is white, more especially on the external side. 2. The central veins of the optic nerve are diminished in size at their point of emergence, but after crossing with the central arteries, most frequently near the edge of the disc, they become larger. 3. Sub-cutaneous pulsation of the central artery is seen. 4. The pupil contracts to light, but it is enlarged and irregular. 5. The visual field is narrowed in the internal or supero-internal portion, while it remains normal, at least for a long time, in the external and inferior portion. 6. Dyschromatopsia does not exist at the beginning of the disease, and is hardly appreciable later when the opaque zone of the internal visual field has reached the central point of vision. 7. The patella reflexes are preserved and there are no shooting pains. The disease is of gouty, arthritic, or syphilitic origin. Repeated anterior sclerotomy and general treatment appropriate to the diathesis (gout, syphilis) considerably improve the atrophy of the disc and sometimes even arrest it, as I have found in five out of seven cases which have come under my observation.

Book Reviews.

A Text-Book of Bacteriology. By GEORGE M. STERNBERG, M.D., LL.D., Surgeon-General U. S. Army. Imperial 8vo., pp. 693. Illustrated by Heliotype and Chromo-lithographic Plates, and Two Hundred Engravings. [New York: William Wood & Co., 1896.]

The "Manual of Bacteriology," by the same author, which appeared a few years ago, elicited unbounded praise and numerous favorable comments. It was such a large and compendious work that no student could afford either the money to purchase it or the time to study it. Those engaged in bacteriological studies and researches quickly availed themselves of the opportunity of obtaining a copy of this magistral work. In view of these circumstances, Dr. Sternberg, with the aid of his publishers, remodeled the work, incorporating the most salient features and adding new information on pathological bacteria, thus bringing it up to date and within a smaller compass.

Such is the text-book before us. It is in itself a most complete exposé of the subject, and is destined to hold a most prominent place among scientific works for many years to come; and deservedly so, as the author is known everywhere as a most industrious and indefatigable worker in the field of bacteriology, and he has earned a very high and well-deserved reputation as a consequence of his efforts. He was one of the first to make original researches, and has observed and described many organisms unknown to investigators until demonstrated by him.

It will readily be understood that, as a natural consequence, his text-book would not be anything else but practical in its scope, as well as lucid in its methods. These are marked points of distinction of the work which will readily commend it to those students of the more scientific aspects of medicine. And it is this very class who are not satisfied with mere hand-books or compends, but rather desire works of a scope sufficient to utilize as reference-books after their student days are over and they have to begin the more serious business of engaging in active practice. This is one of the points of superior excellence which this text-book possesses and to which we desire to call attention. Those practitioners of medicine and surgery who can devote but a portion of their time to bacteriology will find the book before us a good, full and reliable guide to all the work in this branch that they can possibly do. They will also find it a work which will give them all the information they can possibly desire. As a thorough guide to bacteriology it may be safely stated that it stands without a peer in the English language.

The plates and illustrations, especially the photo-micrographs, are certainly of a higher order of merit than is usually encountered in text-books. The publishers have certainly been liberal as well as discriminating in producing such a handsome volume, which is a fine example of superior work, and shows them to be adepts in the art of book-making.

A Manual of Anatomy. By IRVING S. HAYNES, Ph.D., M.D. 8vo., pp. 680. With 134 Half-tone Illustrations and 42 Diagrams. [Philadelphia: W. B. Saunders & Co, 1896. Price, \$2.50 net.

This manual of anatomy differs somewhat from the text-books which have hitherto appeared, in the fact that descriptions of the bones and joints, as well as of parts requiring minute dissections, have been omitted. This is a plan which is to be commended, as the former are now treated of separately in medical colleges, and the latter are taken up in special works. This permits of a greater scope being allowed to the other parts such as the student dissects in his college course.

The author begins with the dissection of the head, and proceeds with each region in regular order. The head occupies quite a large amount of space; and very deservedly so. It is in this portion of the manual that we find the most interesting and valuable part—that devoted to the brain. The author occupies no less than 102 pages in description of that important organ, and to the student of the diseases of the brain it will prove an invaluable aid.

A feature of the book is the fact that all the illustrations are original, being half-tones made from photographs of the author's dissections. This is most excellent, as it shows the actual conditions seen instead of the diagrammatic illustrations in use hitherto, and which but too often are misleading to the student who is beginning to dissect. As a general rule, it may be stated that the illustrations are clear and instructive. Some of them, however, could be better, and this is evidently due to under-exposure of negatives in taking the photographs. Figures 11, 12 and 13 of sections of the skull are particularly good; as are also Figures 14 to 18 inclusive, illustrating the dissection of the neck. All the figures illustrating sections of the brain are above the average also.

A feature of the book is the very complete index, which occupies no less than 32 double-column pages of fine print. This is an invaluable adjunct as an aid to ready reference in looking up a certain point upon which information is sought.

Taken all in all, this volume is among the very best of the New Aid Series of Manuals of Saunders, and it will, without doubt, find a ready sale with students and physicians alike.

Borderland Studies. Miscellaneous Addresses and Studies Pertaining to Medicine and the Medical Profession, and Their Relations to General Science and Thought. By GEORGE M. GOULD, A.M., M.D. 8vo., pp. 384. [Philadelphia: P. Blakiston, Son & Co., 1896. Price, \$2.00.

No one, physician or layman, who has any pretensions to an education can read this book without being impressed by the interest which it cannot fail to elicit. The essays which are contained within its covers number twenty-four, and the scope of subjects extends from vivisection to immortality. All the material given has been previously published, with the exception of the article concerning medical language, which was read before the American Association of Medical Editors May last. This is an especially valuable paper, which every medical writer should read and thoroughly digest. As a piece of etymological work it is both finished and thorough. It evidences a very complete knowledge of the proper methods of word-construction, and its effect, we hope, will be to lead to uniformity in orthography as well as in the use of medical terms.

He who reads these essays will not only find that they are in the highest degree interesting, but they are logical and critical as well. The former editor of the *Medical News* long ago established a reputation in this respect, and it was in great part due to the separate articles which have been collated in the book before us. Whilst some of these contributions might be looked upon as metaphysical, they never go beyond the realm of fact, and neither mystify nor become incomprehensible.

We are pleased to see these articles of Dr. Gould in permanent book form. Those who obtain a copy—and no physician can afford to have his bookshelves without it—will not only read it with wrapt interest, but will recur to it often and reread it with renewed zest and pleasure. The publishers have made a handsome volume, in good binding, and will no doubt meet with a large sale of the work.

Transactions of the American Dermatological Association at its Nineteenth Annual Meeting, held at the Windsor Hotel, Montreal, Canada, September 17-19, 1895. Official Report of the Proceedings. By CHARLES WARRENNE ALLEN, M.D., Secretary. 8vo., pp. 195. [New York: Press of Geo. L. Goodman & Co., 1896.

It is with more than ordinary pleasure that we hail the advent of this copy of the Transactions of the American Dermatological Association at its Annual Meeting of 1895. The volume, whilst not bulky, is of goodly proportions and liberally illustrated with most excellent chromo-lithographs and half-tone engravings, which do much to render the contents of the volume

more useful as well as more attractive. We cannot enter into a detailed notice of the different papers and of the discussions thereon. It will suffice to state that the high standard of the Association has not only been maintained, but it has even been improved upon.

There are two features which we are pleased to note in connection with the papers, as they are such as cannot but redound to the greater credit of the work done by American dermatologists. In the first place, the clinical aspects of cutaneous affections are represented with that fidelity to detail and thoroughness of description which has been so characteristic of European clinicians. In the second place, the pathological anatomy is dwelt upon to the extent which its importance deserves. Microscopic work is now more utilized than formerly, and we can already see the dawn of that era in American dermatology when it shall assume its position in the front rank side by side with that of the most prominent of the world.

Too much praise cannot be accorded Dr. Allen, the secretary, for the very thorough as well as neat manner in which he has issued the proceedings. We only regret the fact that, contrary to the usual custom, no table of contents is given, as this would greatly facilitate a reference to its contents. O.-D.

A Handbook on Leprosy. By S. P. IMPRY, M.D., M.C. 8vo., pp. 116. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, \$3.50.

Whilst but a small work, the book before us is a most interesting contribution on a disease which is ever gaining new interest for medical men. During the time that the author was chief and medical superintendent of the Robben Island Leper Asylum he had abundant opportunity to observe cases of the disease in its different forms, no less than 703 having come under his care. The author recognizes four forms of the disease—the tubercular, the anesthetic, the mixed, and what he is pleased to call the syphilitic. In regard to this last he says, in justification of the name and of considering it worthy of a separate designation, that “though it is produced by a combination of two distinct diseases, yet each malady modifies the other in such a marked manner that the distinctive characters of the primary diseases are lost in combined disease.” This is an observation which is certainly worthy of consideration at the hands of those who have occasion to observe cases of leprosy.

So far as the question of acquiring the disease is concerned, the author doubts the influence of heredity. He is convinced that infection is the mode by which it is transmitted, and even here susceptibility must exist in the individual, and this is induced by cold, which is to be regarded as an exciting cause of the malady.

He gives but little hope of being able to cure leprosy. He regards hygienic treatment as the best. Locally, he states, a mask of oxide of zinc ointment on lint placed over the tubercles does good through its protecting influence; light and cold, according to his observations, having a tendency to aggregate the local symptoms. Iodide of potassium, bichloride of mercury, chlorate of potassium, or salicylic acid, he has found to be good at times. In his experience chaulmoogra oil is of no benefit whatever. A fact noted by him is that erysipelas was followed by marked improvement in some cases, but he never practiced inoculations to establish a causal relationship.

The book is illustrated with thirty-seven full-page plates, in the main good. This is certainly a very valuable portion of the book, which, on the whole, is full of suggestions which will give the subject increased interest to the reading physician. In view of the fact that the leprosy question is being again agitated throughout the medical world, physicians in general will find it an excellent little monograph to study. O-D.

A Compend of Diseases of Children. Especially Adapted for the Use of Medical Students. By MARCUS P. HATFIELD, A.M., M.D. 12mo., pp. 220. Second Edition, Thoroughly Revised. With a Colored Plate. Quiz Compend No. 14. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, 80 cts.]

This compend has reached its second edition, and deservedly so. It is no surprise when we note the fact that it is a condensation of the author's lectures on the subject of the diseases of children. He has noted the needs of students in this matter, and he has very well succeeded in meeting them if we are to judge from the large sale and popularity which the first edition enjoyed.

We have read this little book with pleasure, and have no doubt that others long since past their student days have shared in the same enjoyment. We would not be surprised to hear that a third edition had been called for in a short time.

How to Feed Children. A Manual for Mothers, Nurses and Physicians. By LOUISE E. HOGAN. 12mo., pp. 236. [Philadelphia: J. B. Lippincott Co. 1896. Price, \$1.00.]

It is not so many years ago that little or no attention was paid to the subject of dietesis by the American medical profession. The important role which it plays, not only in health but in the course of the management of diseased states, has made it a most prominent factor in therapeutics, preventive as well as curative. The growing importance of the subject is evidenced by the fact that a number of works treating of it have recently made their appearance and have rapidly forged their way to the front and become almost indispensable to progressive physicians.

The opusculc before us is one more especially intended to give practical advice in regard to the diet of children, how and when to feed them, as well as how certain articles of food should be prepared. The authoress has shown her thorough familiarity with the subject as well as her large knowledge of pediatrics. Such works as those written by Rotch, Jacobi, yes and others, have been utilized in the preparation of this little work.

Taken on the whole, it may be stated that it is a thoroughly reliable guide, not only for mothers but for nurses and physicians as well. The recipes given at the end of the book, in conjunction with those interspersed in the text, are not the least valuable feature of this little practical guide.

A Compend of Gynecology. By WILLIAM H. WELLS, M.D. 12mo., pp. 262. With 150 Illustrations. Quiz Compend No. 7. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, 80 cents.

This is a very compact and withal clear presentation of the subject of gynecology. The text is necessarily curtailed and dogmatic in character. But this is more than compensated for by the fact that the teachings are both sound and modern. Whilst compends are not to be recommended to students, except to refresh their memories on some points, if they must have one they should choose one that is good, and that before us easily takes a prominent position among the best in its class.

The directions in regard to technique and methods of operating are very good, whilst the clinical descriptions are extremely well compressed in a few words full of suggestions and ideas.

Obstetric Accidents, Emergencies and Operations. By L. CH. BOISLINIERE, A.M., M.D., LL.D. 8vo., pp. 381. Profusely Illustrated. [Philadelphia: W. B. Saunders 1896. Price, \$2.00 net.

Ever since the appearance of this book we have deeply regretted the fact that it is a posthumous work. The author wrote it with the idea of making it as thorough and complete as the limits assigned to him would permit, and we are free to confess he succeeded most admirably. It was a labor of love with him, and he devoted much care and attention to its elaboration. Just as he was about to see the fruition of his labors, illness took him from the midst of his valuable labors and deprived the medical profession of one of the few men who was universally beloved by his students and respected by his colleagues. No one ever met him or had occasion to need his services but spoke of him in the highest terms as a man and a physician as well as friend in all that the term implies.

A careful examination of the work will demonstrate that he knew whereof he wrote, and as a natural result a remarkable

degree of perspicacity characterizes the text. Those who had the pleasure of hearing him lecture will readily recognize the same clear method which has made them such competent accouchers. A particularly strong chapter is that devoted to the use of the forceps. Every obstetrical emergency is dwelt upon, and the proper method of meeting untoward events is simplified to such a degree that he who runs may read and understand.

We have no doubt that the book will meet with a large sale, and we desire once more to express our regrets that he did not live to see the success which it will achieve.

Literary Notes.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

A Text-Book of Bacteriology. By George M. Sternberg, M. D., LL.D., Surgeon-General U. S. Army. Imperial 8vo., pp. 693. Illustrated by Heliotype and Chromo-Lithographic Plates and Two Hundred Engravings. [New York: William Wood & Co. 1896.

A Manual of Anatomy. By Irving S. Haynes, Ph B., M.D. 8vo., pp. 680. With One Hundred and Thirty-Four Half-Tone Illustrations and Forty-Two Diagrams. [Philadelphia: W. B. Saunders. 1896. Price, \$2.50 net.

Borderland Studies. Miscellaneous Addresses and Studies Pertaining to Medicine and the Medical Profession, and Their Relations to General Science and Thought. By George M. Gould, A.M., M.D. 8vo., pp. 384. [Philadelphia: P. Blakiston Son & Co. 1896. Price, \$2.00.

A Hand-Book on Leprosy. By S. P. Impey, M.D., M.C. 8vo., pp. 116. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, \$3.50.

Obstetric Accidents, Emergencies and Operations. By L. Ch. Boisliniere, A.M., M.D., LL.D. 8vo., pp. 381. Profusely Illustrated. [Philadelphia: W. B. Saunders. 1896. Price, \$2.00 net.

How to Feed Children. A Manual for Mothers, Nurses and Physicians. By Louise E. Hogan. 12mo., pp. 236. [Philadelphia: J. B. Lippincott Company. 1896. Price, \$1.00.

Transactions of the American Dermatological Association at its Nineteenth Annual Meeting, held at the Windsor Hotel, Montreal, Canada, September 17-19, 1895. Official Report of the Proceedings by Charles Warrenne Allen, M.D., Secretary. 8vo., pp. 195. [New York: Press of Geo. L. Goodman & Co. 1896.

A Compend of Gynecology. By William H. Wells, M.D. 12mo., pp. 262. With One Hundred and Fifty Illustrations. Quiz Compend No. 7. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, 80 cents.

A Compend of Diseases of Children. Especially Adapted for the Use of Medical Students. By Marcus P. Hatfield, A.M., M.D. 12mo., pp. 220. Second Edition, Thoroughly Revised. With a Colored Plate. Quiz Compend No 14. [Philadelphia: P. Blakiston, Son & Co. 1896. Price, 80 cents.

The National Medical Review of Washington is now "The Official Journal of the Medical Society of the District of Columbia." All papers and discussions given before that society will be published in the *Official Journal*. This society now numbers about three hundred active members, and includes a number of the most prominent medical men in the army and navy. The editor announces that his journal will be enlarged and otherwise greatly improved in order to carry into effect this new arrangement.

The Art of Advertising is one which is not easily acquired. The Antikamnia Chemical Co. has certainly displayed not only ingenuity, but skill as well in its various advertisements. The "Phases of the Moon," which appears in this number, is both new and unique, displaying a great deal of originality as well as taste. Whilst useful as a calendar of the month, it will also be found of interest to those who desire to know the phases of the moon for each day of the month.

The American Therapist is no longer edited by Dr. John Aulde, who found it impossible to continue longer in that position on account of other important interests necessitating his complete attention.

Langsdale's Lancet is published in Kansas City, the assertion of the *American Medical Compend* notwithstanding. The *Lancet* is not published in St. Louis and will not be, so far as we know.

A New Operation.—We read the following in the *Atlanta Clinic*: *Litigation* of External Carotid Artery, etc. We are not informed as to who the defendant is.

Miscellaneous Notes.

Peacock's Bromides.—I have prescribed Peacock's Bromides advantageously in a number of cases of dysmennorrhea, uterine congestion, and difficult dentition in infants, and always with the most happy results.

JAS. B. KERSEY, M.D.

Herbst, Ind.

Cactina Pillets.—I am not in the habit of giving testimonials, and certainly would not do so until I had given the remedy a thorough and satisfactory trial. I have prescribed Cactina Pillets about five years, and find them to be a very valuable preparation—much better than the modest claims made for them.

O. M. BROWN, M.D.

Hockley, Tex.

Digestive Disorders of Children.—The value of Listerine in those digestive disorders of childhood which lead to what is commonly called cholera infantum can scarcely be overrated. A teaspoonful of Listerine administered per oris has been known to dissipate the most alarming symptoms, cutting short the attack, and apparently saving life. A good way is to begin something like this: Calomel and chlorate of potash, each one grain, to be rubbed well together and to be divided into ten powders, one to be given every five minutes until vomiting ceases and the nature of the stools have been changed; then commence and give teaspoonful doses of Listerine every four hours until convalescence.—*Medical Progress.*

"One of the Certainties of Medicine."—Belcher Hyde, M.D., of Brooklyn, N. Y., writes: "Antikamnia is an American product, and conspicuous on this account and because of the immense popularity which it has achieved. The literature is voluminous, and clinical reports from prominent medical men, with society proceedings and editorial references, attest its value in actual practice in an endless variety of diseases and symptomatic affections. The fact stands incontrovertible that Antikamnia has proven an excellent and reliable remedy, and when a physician is satisfied with the effects achieved he usually holds fast to the product. Antikamnia is one of the certainties of medicine. This is the secret and mainspring of its success."

Bromidia.—I want to say here that I have saved the lives of more children, of all ages, with Bromidia than any other remedy I have ever used—and I have used it since it was first introduced. I would no more think of going among the little ones without a bottle of it than I would think of going among the "Haw-eaters" of the Missouri Valley without a bottle of quinine. I know how many feel from what they write about so-called proprietary remedies, but "what I have written I have written."

When doctors learn that medicines never cure any disease, but may only remove the cause, that the system may restore itself, then there will be a great revolution in our medical armamentarium and the manner of using to obtain the desired results.

Kansas City, Mo.

J. M. DUNCAN, M.D.

—*Medical Brief*, September, 1895.

An Opinion from the Highest Court.—J. A. Larrabee, M.D., President Faculty Hospital College of Medicine, Assistant-Surgeon U. S. A., Professor Obstetrics and Diseases of Children, etc., Louisville, Ky., writes: "I have used Maltopepsine to the greatest advantage in my infantile practice, and find it to be everything that you claim."

Dysmenorrhea.—In the March number of the *Alabama Medical and Surgical Age* is a very interesting article on "Dysmenorrhea," by G. C. Chapman, M.D., of Birmingham, Ala., which we hope to soon reproduce in our journal.

Speaking of various methods of treatment, the doctor says: "But the remedy that has proven the greatest boon to my patients has been Dioiburnia, given in tablespoonful doses four times daily, beginning four or five days preceding the expected attack, and after the flow is established every two or three hours."—*California Medical Journal*, May, 1896.

Hyoscine Hydrobromate was admitted to the United States Pharmacopeia, 1890. The German Pharmacopeia of the same issue also made this product official, but in a Supplement, issued a year later, the Pharmacopeia Commission adopted he name "Scopolamine Hydrobromate" to replace "Hyoscine." The reason for this change is that nearly all the Hyoscine supplied by manufacturing chemists is made from *Scopolia Atropoides*, and hence "Scopolamine" more correctly indicates the source of the alkaloid. In this country the name "Hyoscine" is, moreover, alleged to be a trade-mark, and as a consequence it is sold at an exceptionally high price. C. F. Boehringer & Soehne, taking these facts into consideration, have recently put in stock this product labeled thus: "SCOPOLAMINE HYDROBROMATE, identical with HYOSCINE HYDROBROM., U.S.P.," and their product (Specify B. & S.) is obtainable in 5, 10 and 25 grain vials from wholesale druggists throughout this country at about half the price quoted for Hyoscine.

Protonuclein.—J. D. Albright, M.D., of Akron, Pa., says (*Lancet-Clinic*): "When this agent was first offered to the profession the claims made for it were so startling that doubtlessly many physicians at once concluded that it was simply another ephemeral fad, and not worthy of their attention or serious consideration, and passed it by. To those, however, who chose to investigate its merits it has proved itself one of the most pronounced successes of modern therapy. In theory it seemed plausible; in practice it is perfect. On account of its peculiar relation to the entire organism, the diseases in which it is applicable are so varied as to make classification impossible.

Lithia a Valuable Remedy.—Lithia is at present one of the foremost remedies for rheumatism, kidney troubles, gout, and analogous diseases. Many of the various lithia waters on the market are, as a rule, unreliable, the chief complaint being the varying amount of lithia contained in the water. For instance, some time ago I had a case where lithia was indicated. I tried a well-known lithia water, and was extremely disappointed in the results. I mentioned the incident to my druggist, who is a thoroughly "up-to-date" man, and he informed me that the latest and most accurate mode of administering lithia was in three and five grain tablets. I purchased some of Wm. R. Warner & Co.'s original lithia water tablets, three grains, administering them to a patient, and the result was so gratifying that I have used them ever since. I have yet to be disappointed in the results of their administration. One case was that of a man, forty-five years of age, who had been troubled with kidney trouble for six years. He had been taking a natural lithia water, and had not been benefited at all. He finally came to me, and I prescribed lithia in the only intelligent method that is possible—in tablet form. Why? For the reason that I know how much lithia I am giving my patient. One might give a patient a gallon of natural lithia water, and if asked how much lithia he has administered would find it impossible to state the exact amount. This patient fully recovered under this treatment.—*Monthly Retrospect of Medicine and Pharmacy*.

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 668.

VOLUME LXXI.—AUGUST, 1896.—No. 2.

Original Communications.

A RAPID AND SUCCESSFUL TREATMENT OF HERPES ZOSTER. By
A. H. OHMANN-DUMESNIL, Professor of Dermatology and
Syphilology in the Marion-Sims College of Medicine, of St.
Louis.

Although herpes zoster is one of the affections of the skin which is of comparatively frequent occurrence, and has been known ever since cutaneous eruptions were observed, there is no manner of doubt that many points connected with its etiology and pathology are still veiled in more or less obscurity. It was not till quite recently that a consensus was arrived at in regard to its being a relapsing disease. And for this knowledge we must give the general practitioner due credit. Without any pretenses to a special knowledge of cutaneous medicine, the country doctor has many a time had occasion to see "shingles" occur a number of times in the same individual. Such instances have been reported so often that the idea no longer prevails that one attack of herpes zoster confers immunity against subsequent ones in the same individual. Nevertheless, this was the opinion formerly held by the best observers, and a reference to works on

dermatology will show that it was a generally accepted one. The cause of this no doubt lay in the fact that the patient either did not apply for relief when another attack came on, or sought the services of some one else in the hope that this latter would be able to prevent a recurrence.

Another idea which has prevailed is that the disease has a self-limited course, lasting from three to four weeks, when spontaneous recovery takes place. I have seen cases in which successive crops of vesicles had appeared for two or three months, breaking down of the lesions and ulceration showing itself. Not only this, but the ulceration would become phlegmonous, and during all this time the neuralgic pains were of an intense character to such a degree that opium and other sedatives soon became impotent. Such a self-limitation is certainly one not to be desired by any means, and therapeutic interference is not only indicated, but imperatively demanded by the exigencies of every case.

It has been asserted by some good authority that no treatment will cut short the course of herpes zoster, and that the best which can be expected from medication is to diminish the neuralgic pain. This is certainly far from being either satisfactory or encouraging, and it would certainly be positively discouraging to those who have occasion to treat that dread condition—zoster ophthalmicus. For it has been too often the case that an inability to arrest the process has resulted in perforation of the cornea, and, not infrequently, destruction of the globe. When the conjunctival surface is not attacked, we are told that herpes zoster of the fifth nerve invariably leaves scars to mark the former location of the lesions—a dictum which to my mind is a *non-sequitur*. It is based on the fact that active interference has not even been attempted under the fallacious idea that the disease must be left to run its course. I have always been in the habit of treating these cases rather energetically, and my efforts have been rewarded by excellent results. Whether it has been merely a coincidence that such a short period of treatment was followed by recovery, or a peculiar circumstance that all were cases which would have recovered spontaneously in a few days, I shall not stop to discuss. The fact remains that a similar treatment in a number of cases was eminently satisfactory, and I shall continue to use it until a sufficient number of failures declare themselves

to demonstrate its inefficiency. In principle, the method has nothing new to recommend it; in its application, however, it is characterized by some details which will recommend it for simplicity and ease of administration. The following are a few cases which occurred in my private and hospital practice, and which will serve to illustrate the points I wish to make:

CASE I.—Charles W., photographer by occupation, aged 32, is of robust physique and is a prominent and active member of a gymnasium. He exercises daily, but is inclined to take on adipose tissue. Some few days before I saw him he conceived a notion that his liver, bowels and other internal organs were not “working right.” In order to remedy what he conceived to be his generally bad condition he made a concoction according to the formula furnished by some kind friend. An examination of the receipt showed it to contain a very large amount of colchicum. As a result of the ingestion of this mess the patient was violently purged, and a repetition of the dose made him very feeble indeed. The third day after taking the mixture an eruption of herpes zoster declared itself. As soon as the vesicles appeared, a slight itching and a marked neuralgia were manifest. The next morning I saw the patient, and the distribution of the eruption was about as follows: Anteriorly, a patch of pin-head size vesicles about $1\frac{1}{2}$ or 2 inches in size was located over the third intercostal nerve at a point corresponding to about the centre of the clavicle. Posteriorly, the eruption followed the course of the same nerve, extending from about five inches to the right of the spinous processes of the vertebræ to the margin of the trunk, and with an almost uniform width of two inches.

The treatment ordered was to take thrice daily, after meals, the following pill:

Rx	Acidi arseniosi	gr. $\frac{1}{10}$.
	Pulv. piperis nigris.....	gr. ijss.
	Ext. gentian	q. s.
M.	Fiat pilula No. 1.	

They were ordered to be taken for ten days.

Externally, campho-phenique powder liberally sprinkled upon absorbent cotton, and applied to the eruption. This dressing was to be repeated twice daily. In three days crusts were formed, and on the fourth the case was at an end, the neuralgia having completely disappeared.

CASE II.—James C., a druggist, 36 years of age, presented himself for the treatment of an intercostal neuralgia of the right side. He complained of a marked neuralgic pain which had preceded the eruption some five days. It was not the intensity of the pain that the patient complained of, but the fact that the eruption was spreading. At the time I saw him the outbreak consisted of a number of patches of silver quarter dollar size, distributed over the area supplied by the sixth intercostal nerve. It extended from a point about six inches to the right of the median line posteriorly, and about four inches from the median line anteriorly. The vesicles were well formed, and in many places two or three had coalesced.

This patient was placed on the same treatment as case No. 1, and in five days the cure was complete. He was ordered to continue the pills for two weeks longer in order to avoid the possibility of a recurrence of the trouble. Up to the present no reappearance of the trouble has manifested itself.

CASE III.—Winston W., aged 17, a buggy-boy in a livery stable, appeared at my clinic with the statement that the eruption showed itself a week previously. There was no neuralgia experienced before the eruption appeared, but when it did manifest itself neuralgic pains were felt. The eruption appeared over the tract of the fifth intercostal nerve. Five patches were present to the left and below the left nipple, three below the left scapula, one being very small. The patient is of a highly nervous temperament, a slight tickling almost throwing him into convulsions, making him jump about in a grotesque manner and grasp anything or any one within reach, and strike the object or person with his fists. At the stable where he worked he was constantly subjected to this nervous excitement, and this may have acted as a causative factor.

The following treatment was ordered:

Internally—

R	Acid. arseniosi	gr. $\frac{1}{10}$.
	Pulv. piperis nigris	gr. ij.
	Ext. gentian	q. s.
	Ft. tal. pil. No. 30.	

Sig. One pill after each meal.

Externally—

R Pulv. camphoræ	3ij.
Bismuthi subnitrat	3iv.
Cretæ preparat	3j.

M.

Sig. Apply twice a day.

This powder was ordered spread on cotton as in the other cases, and six days after the inception of the treatment the patient was cured. No new vesicles formed subsequently, the pain had disappeared, and no new attack has manifested itself since.

CASE IV.—Lydia C., a little school-girl, 9 years of age, has had recurrent attacks of herpes zoster every year. She is a blonde, but appears well nourished. She has recently suffered from imitative chorea, but is now well of the trouble. Her nervous system, however, is very susceptible to shocks of all kinds. The present attack is the most severe she ever experienced. It appeared some four days before she came to the clinic. A large patch of closely aggregated vesicles was located on the left and posterior side of the neck. Other patches occurred on the left shoulder, upper part of the left arm over the area supplied by the musculo-spiral nerve. The neuralgia was intense, being worse at night. The child showed plainly the intensity of the neuralgic affection. There was no zosterian fever present nor any history of such. It would hardly exist in view of the fact that a marked neuralgia was present.

The treatment in this case was the following:

R Liq. kali arsenitis	3ss.
Vini ferri,	
Syr. limonis	āā 3jss.

M.

Sig. Teaspoonful in water after each meal.

Externally, the same powder was used as in case III. On the sixth day the pain had all disappeared as well as the eruption, and there existed but a very slight superficial desquamation. The patient was subsequently seen, and the favorable condition continued.

CASE V.—Oscar M., a laborer, 64 years of age, applied for treatment at my clinic two days after the eruption had declared itself. No antecedent trouble or present discomfort could be elicited beyond constipation. No neuralgic pain was present nor

had any been felt, and no medicines had been taken. In fact, no neurotic basis could be discovered as a possible cause of the eruption. This latter consisted of a vesicular eruption, such as is characteristic of herpes zoster, extending along the level of the right twelfth rib, from a distance of about two inches from the posterior median line over the abdomen up to the umbilicus. The vesicles were well-marked, rather large, but with no tendency to coalesce. The only subjective symptom complained of was an intense burning sensation at the site of the eruption.

The treatment ordered consisted of the following:

℞ Liq. kali arsenitis 3vj.
Vini ferri,
Syr. limonis..... āā ʒijj.

M.

Sig. A teaspoonful in water after each meal.

Externally, campho-phenique powder liberally dusted on cotton, and applied to the eruption twice daily.

Five days after the treatment was begun the eruption was all dried up, and three days later no vestige of it remained. The patient was ordered to continue the internal medicine until it was all taken, and strictly enjoined to present himself should any new symptom show itself. He never reappeared.

CASE VI.—Daniel F., an engineer, 36 years old, appeared four days after the eruption had occurred. About two weeks previously he was treated for diarrhea. He had been drinking alcoholic liquors pretty heavily. His diarrhea subsided in two days and constipation set in. The eruption consisted of isolated patches of vesicles over the tenth and twelfth ribs on the right side of the back. He complained of some itching and of a neuralgic pain on the anterior portion of the trunk. As the patient expressed it, "the pain stopped at the middle line." The eruption had an irritated and angry appearance.

The treatment ordered was the same as in case V. Three days later some of the lesions were well, no new ones having appeared. Five days later the pain was much less, the lesions disappearing. Ten days after first presenting himself the patient was practically cured.

Such is a brief outline of cases of herpes zoster seen by me in July, 1895. I have purposely chosen these, as the time which has elapsed since then has been sufficient to arrive at a

positive conclusion as to whether the attack was definitely cured in each case. Of course, it will be interesting to note whether recurrences take place or not. So far, I have noted none, and I have been careful to keep them under observation. What concerns us more directly is in reference to the treatment, and I desire to incorporate in these views some experiences noted before and after the treatment of the cases which have been outlined above, more especially as regards some of the generally followed practices. The cases which have been recited certainly sufficiently demonstrate that the opinion that herpes zoster cannot be cut short in its course is a fallacious one and will not be referred to at any length.

Some few points which may be noted in connection with the cases outlined are that, in the first case, arsenious acid seemed to act better than Fowler's solution. I have found that the Asiatic pill is, on the whole, the best method of administering arsenic, and its use may be prolonged for a much longer period of time than the Fowler's solution. Furthermore, I have never seen any untoward symptoms follow the administration of arsenious acid, whereas the solution has produced arsenical dermatitis in a number of cases, notably factitious zona pectoralis. A point which I have always observed has been to give a good working dose, and I am pretty certain that it is owing to this fact that attacks of zona were aborted in such a short time. An examination of the histories of all the cases given will demonstrate the short time required to relieve each one, and furthermore that this period was shorter in those who took the Asiatic pill. At any rate, the time was very short and the neuralgia ceased when the eruption disappeared.

The local treatment which I have employed is one which has always acted favorably with me. Protection to begin with is effected by a cotton dressing, and a rapid disappearance of the eruption by means of a drying, analgesic powder. I have essayed lotions, collodion, plasters, and similar methods, but never found any one equal to the old and time-tried powder. Another fact which I have observed is that the vesicles do not break down, no ulceration occurs and consequent scars do not result from an attack.

Whilst the treatment I have outlined is both rapid and successful, it possesses another advantage which, in my opinion, is

not the least valuable. I allude to its simplicity. It may be carried out by any practitioner of medicine; it requires no special, rare, or costly preparations, and can be easily understood by any one. It might be said that its very simplicity is its greatest drawback in the eyes of those who look upon dermatology as a mysterious science instead of what it really is—cutaneous medicine.

Before closing these few remarks, I desire to call attention to the fact that the most difficult thing to determine is the cause of herpes zoster. Whilst, in some of the cases given, a neurotic base apparently existed, in others no such history could be elicited. So far as parasiticism is concerned, I never could satisfactorily establish it, nor do I remember that any one has succeeded in doing so positively. That a neurotic element exists, however, is beyond doubt, in view of the constant presence of a neuralgia or some very marked pain which disappears simultaneously with the eruption.

Advances in Skiagraphy.—Dr. Arthur W. Goodspeed, of the University of Pennsylvania, has succeeded in obtaining a skiagraph of the upper portion of the trunk of his own body, as well as the lower part, showing the entire pelvis, the hip-joints, and a portion of the thigh bones, after an exposure of forty-five minutes (*Med. Rec.*). The result indicates that less time would have sufficed for the purpose. The tube used by Dr. Goodspeed is of his own design, and consists of a four-inch bulb with a branch on either side through which are introduced the electrodes, each of which is covered with blue enamel. One electrode consists of an aluminium disc, which is placed at one end of the tube, and the other terminates in a platinum disc, about one inch in diameter, which is placed at the centre of the tube and at an angle of forty-five degrees to the first disc. The tube is exhausted to about one millionth of an atmosphere. A Ruhmkorff coil, with a ten-inch spark, is used, the primary current being broken two thousand times a minute by a motor. Dr. Goodspeed has undertaken to produce a series of pictures that shall show the normal condition of the bones of the human body in a state of health, and that shall serve as a means of comparison with abnormal or diseased conditions.

REMARKS ON THE DANGER OF THE PAINLESSNESS OF CHRONIC
INFLAMMATION OF THE NOSE, THROAT AND EARS. By
THOS. F. RUMBOLD, M.D., St. Louis.

The painlessness of a disease is certainly a dangerous feature, and the danger increases with the importance of the locality affected, and the nearer the brain the greater the importance. When the very intimate relation of the nose to the throat, the nose to the ears, the nose to the eyes, the nose to the stomach, the nose to the lungs, and especially of the upper two-thirds of the nose to the brain, is taken into consideration, the sensationlessness of the primary chronic nasal inflammation is plainly seen to be dangerous. The naso-brain circulation emphasizes this danger. The upper four turbinates and posterior four cavities connected with the nasal passages receive their blood supply from four branches of the anterior cerebral arteries, two for each nasal cavity. Each of these four arteries after entering the nasal cavity, again enters the brain cavity to supply blood to the anterior portion of the meninges, then it again, for the second time, enters the nasal cavity to supply blood to the four upper turbinates. It is seen that every hemorrhage from the superior and middle turbinates is a depletion of the anterior cerebral lobes.

No other organ of the body is so intimately connected with the brain, not even the eyes or the ears. It is not astonishing that cerebral disturbance should follow nasal inflammation; in fact it would be against all precedence in pathology if it did not do so. If the superior and middle turbinates were as diseased as the inferior turbinate is so very frequently seen to be, insanity of an incurable form would surely more frequently result than it does now. The complete ignorance of the relation of the diseased condition of the sphenoid and ethmoid cells and the four upper turbinates to insanity, allows many insane to remain in the asylums.

The great majority of persons who are between 20 and 40 years of age are afflicted with chronic nasal inflammation, and several times during each spring and fall this inflammation receives acute accessions. The acute form in this grade always produces more or less disagreeable sensations, and the patient is generally aware of its presence. These sensations in most cases last but a short time, from one to four days. As the disagree-

able symptoms become less the patient begins to congratulate himself that his cold has passed away, when in fact it has passed into the chronic, the painless, sensationless form. So thoroughly unaware is he of this that he is inclined to disbelieve his physicians when correctly informed. To him, disease of the seriousness that this one is portrayed is always accompanied with pain or disability of some kind; he cannot conceive of such an illness without his experiencing some kind of warning of its presence.

The chronic form, in mild cases, has periods of acute increase occasioned by colds in the head that sometimes cause various degrees of pain, but most commonly cause only a slight degree of disagreeable sensation. These fresh colds may be quite frequent at the changes of the seasons, spring and fall, but the slightness of the disability and the shortness of their continuance causes many to soon forget them, so that frequently the patient will state that he has been entirely free from colds until within the last few months; only after the subject of taking colds has been studied over some days, does he remember that he had numerous colds spring and fall during the last five or ten years or more, and very frequently it is remembered that these cold-takings were frequent even in the age of childhood.

In more severe cases, usually found in the older patients in this grade, colds in the head are less severe, and occasion but little inconvenience for the reason that the mucous membrane is in an anæsthetic or benumbed condition. It is thus seen that in the more severe cases, even in the acute form, but slight indications are given, and as soon as the inflammation assumes the chronic form—which it frequently does in a few weeks at most—it is perfectly painless and sensationless, so there is not the least warning of its presence, or of any damage it may be doing to the various organs of the body.

At first the nasal respiratory space is but slightly encroached upon, so that the mouth is open for breathing purposes at night-time only. This encroachment on the air space in the nasal passages—while it may not be noticed in the least by the patient—draws more blood to the already enlarged and weakened blood vessels of the inflamed part, which produces a more rapid increase of the inflammation, resulting in growths in both the nasal passages and the throat, as mentioned in the February number of the ST. LOUIS MED. AND SURG. JOURNAL.

The Throat.—There are many persons in this grade who at one time had fair voices for singing, but for five or ten years have been unable to sing at all. The vocal cords refuse to make the note, yet they have not had a pain or ache to give them the least warning of the complete loss of the voice in singing.

The Ears.—If this individual has had acute ear-trouble of a serious nature during childhood, this painless inflammation may extend up the Eustachian tube into the middle ear and imperceptibly take away his hearing. It is a very common occurrence to find persons from 20 to 40 years of age who hear an eight-foot watch at the distance of only four feet, or may be two feet, and yet not have the least idea that the hearing is affected. Imperceptibly it may affect the eyes in various ways, by occasioning a diseased condition of the lower end of the lachrymal canal, or the inflammation may extend up the canal so as to affect the conjunctiva, or the Meibomian glands, etc. Imperceptibly it may prepare the mucous membrane of the nasal passages so that he will be surprised by an attack of pruritic rhinitis (hay fever); or the nasal inflammation may be of such a nature that he will suddenly have an attack of asthma, or his lungs may become seriously involved and threaten his life with so-called consumption.

Instead of the painless sensationless inflammation going toward his lungs, it may affect his brain, for there is no organ of the body that is so thoroughly connected with the brain as the nose. There are thousands in every large city that are suffering from unusual forgetfulness and absent-mindedness, from inability to maintain their minds on their business with satisfaction and profit to themselves, from unusual desire for change, from melancholy, from a condition of mind that totally unfits them for their business, from unusual irritability of temper, from a feeling of dread that they will become insane, from a new ailment called "nervous prostration," and from insanity itself, all of which is frequently due to an unrecognized, painless, sensationless nasal inflammation. There is a large number of persons who are suffering from other diseases that this painless, sensationless disease has induced. After the secondary disease has become established, it then assumes an entirely independent form. Some eye troubles have this nasal disease as an origin, some stomach troubles are due to it, some lung troubles are started by

it, many nervous troubles originate from it; in fact, this painless, sensationless disease originates more ailments than any other disease located in any other region of the body.

One more harm that it does is that when the patient has had treatment enough to relieve him of anxiety, the sensationlessness of the disease causes him to take an economic view of his case, and so to allow the complaint to get another start that is almost sure to result more or less seriously in one way or another. I have had many patients, coming for relief of occluded nasal passages, discontinue their visits as soon as the occlusion was removed; not knowing that the disease that occasioned the growths that caused the occlusion was not yet cured, and could not be cured without several years of supplementary treatment. A few of these treatments should be given each spring and fall so as to maintain the mucous membrane in such a condition that the improvement may be continuous, and recovery take place.

If this disease is painless and sensationless, how can a person know when to apply for treatment? Experience has taught many persons that it is well to visit a dentist once or twice each year to have him examine the teeth for fear that small points of decay may have commenced, this decay being, like the chronic nasal inflammation, perfectly painless and sensationless. I recommend that persons who may suspect that they have this nasal inflammation, call on a physician and submit to an examination to ascertain whether or not they require treatment. I have made this recommendation to my patients during these last twenty years, many of whom have taken my advice.

The International Congress of Psychology is announced to be held at Munich, August 4th to 7th, 1896. The program will be divided into four sections—psycho-physiology, normal psychology, psychopathology and comparative psychology.

International Congress of Criminal Anthropology.—The fourth International Congress of Criminal Anthropology will be held at Geneva on August 24th to 29th. M. Adrien Lachenal, president of the Swiss Confederation, is honorary president of the congress. Dr. Paul Ladame is president of the organizing committee.

RHEUMATISM.* By WILLIAM HENRY, M.D., Harmon, Ill.

The term rheumatism has been very loosely defined; almost every painful and swollen condition of the joints was attributed to the above disease.

In the earlier ages of the world's history the cause of the disease was attributed to evil spirits which affected the joints; a superstition which has not died out in our day with regard to many things.

In the Hippocratic age they said the disease was caused by a humor which went to and affected the joints and produced the swollen and painful sensation.

There are different manifestations of the disease—as articular, muscular and arthritic rheumatism.

The rheumatic fever which we so often meet with is generally brought on by exposure to wet and cold and low diet. The fever usually commences with some degree of violence, high temperature, painful and swollen condition of the joints, usually the hands and feet and some of the larger joints, causing severe pain when they attempt to move the affected part. The joints become hot, red, shifting from one of the articulations to another—at one time in the left foot, again in the right knee or elbow, or *vice versa*.

Cullen thus describes rheumatism as a disease from an external and often an evident cause; pyrexia; pain about the joints, following the course of the muscles, fixing upon the knees and larger joints in preference to the smaller. I have seen it as often in the hand and feet as in any other joints. I have met many cases the past twenty-five years.

The late Sir Benjamin Brodie, in his work on “Diseases of the Joints,” clearly separates rheumatism from rheumatoid arthritis, although he designates the latter affection as ulceration of the joints.

Gout and rheumatism sometimes form a hybrid disease, and are both connected. Young people are more liable to be attacked than those in advanced life.

There seems to be only a certain class of people who contract the disease by any exposure; while others with the least exposure to a damp atmosphere are sure to have it. There seems to

* Read before the Rock River Valley Medical Society, June 15, 1896.

be a hereditary tendency to the disease in some families, who will contract the disease on the slightest exposure, while others will not by any kind of exposure.

One set of pathologists looked upon rheumatism simply as an inflammation of certain fibrous and serous membranes.

This was the view held by Cullen, who remarks that, "although some have attributed the disease to a peculiar acrimony in the system, it was without reason."

Du Pont first threw out this idea: that lactic acid was the principle in question.

Dr. W. B. Richardson, has shown by experiment that when lactic acid was injected into the peritoneal cavity of dogs it caused peri- and endocarditis.

The affections for which acute rheumatism is likely to be mistaken are: general gout, rheumatoid arthritis, pyemia affecting the joints, and the acute form of arethral rheumatism. From acute general gout it may be separated by the following peculiarities: the absence of uric acid in the blood; the prevalence of extreme sweating, and acid odor of the perspiration; the great amount of constitutional disturbance compared with the joints affected; the tendency to acute cardiac inflammation. From rheumatoid arthritis: by the great constitutional disturbance; the acid sweats; the tendency to cardiac inflammation.

The prognosis is generally favorable; comparatively few cases are fatal.

Dr. Aitken states that there has not been one death in a thousand from rheumatic fever.

Treatment.—Numerous have been the remedies and methods suggested; cold water, hot water, hot air baths have been recommended; the alkaline and salicylic acid treatment; general bleeding has been tried and recommended; opiates, mercurials, quinine and antimonials; colchicum; and still later, antikamnia, antifebrine, aconite, guiac, iodide of potassa; hot-air medicated baths; nitrate potassa, sodium, and their compounds; blisters, leeches, cupping; baths, wet and dry; electricity; and the various kinds of liniments, too numerous to mention; lemons, and other vegetable acids, have at times been tried; even the old-fogy way of carrying a horse-chestnut in your pocket as a preventative. I must say that many of these anti-rheumatic remedies have proved a failure, and are of no use in severe cases.

I have found nothing better in my practice than large doses of bicarbonate of potassa; and for the fever, nothing better than the tincture of digitalis, in five-drop doses, given at intervals of two hours apart, to control the circulation, has proved a *sine qua non* in my practice. Connected with this, I have every affected part wrapped in cotton wadding—in bad cases the whole body. I use opiates for the pain—usually Dover's powder, where it can be retained. By this line of treatment I have the patient very comfortable in three or four days.

I will give you a case in point. A few years ago I was called to the home of a young man who was afflicted with inflammatory fever. When I arrived at his home I found a case with severe cardiac complications; the heart-beat was very irregular; fever was very high; there was labored breathing; the patient was propped up in a chair; as he expressed himself, his "heart was killing" him; the pulsations of that organ were visible through the clothing; he could not lie down, as he in that position was unable to breathe. I was puzzled; did not know what to think about the case. I could not give his friends any encouragement, as the case seemed desperate. I did not know what the result might be. Here I was puzzled which line of treatment to pursue in this particular case, as another physician who had been attending him said that he could not live. Nearly all the joints were red, and in a swollen and painful condition.

The line of treatment which suggested itself to me was this: I first ordered the whole body to be wrapped in cotton batting; then I put him upon five-drop doses of digitalis every two hours, to control the circulation; at the same time I gave him 15 grains of Dover's powder, to control the pain; then I left a solution of bicarbonate of potassa, so that he would get 10 grains of the potassa every two hours.

I then left the patient to his fate until the following day. On my return the following day I found my patient much improved over the previous day. The cardiac complications had somewhat subsided; the patient was breathing easier; the painful joints were very much better, so that the patient was comparatively comfortable. I continued this line of treatment, and in a few days all of the cardiac symptoms had subsided; the painful, stiff and swollen condition of the joints had gone. In about ten days he was what might be called a well man; only left weak, which was soon overcome by nourishment.

He is a well man to-day. This line of treatment has never failed me in inflammatory fever — that is, pure, uncomplicated cases of rheumatism. Sometimes when gout takes a part it requires other treatment. I might bring many more cases in which I have had the same success by the same line of treatment, but time will not permit me to give any more. Some of the so-called new remedies I have not tried, as the old way seems to be successful. In a practice of twenty-five years I have found no better treatment for a pure, uncomplicated case of rheumatism.

The International Congress of Dermatology. — The following announcement has been issued by the secretary, Dr. George T. Jackson: There will be a museum containing drawings, casts, models, naked-eye preparations, microscopic specimens, and work and atlases pertaining to diseases of the skin. An exhibition of patients, and demonstrations of the same, will also be given. All those who desire to contribute to this department will please address Dr. James Galloway, 21 Queen Anne street, Cavendish Square, W., London. There will be an exhibition of cultures and microscopical preparations of organisms connected with the skin and its diseases. Any communications in regard to this department should be addressed to H. G. Plummer, Esq., Wunderbau, Sydenham, London. Information in regard to hotels will be furnished on application to George Pernet, Esq., 77 Upper Gloucester Place, London, N. W.

The French Surgical Association. — The tenth meeting of the Association française de chirurgie will be held in Paris from the 19th to the 24th of October, under the presidency of Professor Terrier. The inaugural session will begin on Monday, October 19th, at two o'clock. Subjects for discussion are announced as follows: The Surgical Treatment of Clubfoot (Dr. Forgeue, of Montpellier, reporter); The Treatment of Genital Prolapses (Dr. Bouilly, of Paris, reporter). Members are requested to send, by the 15th of August at the latest, the titles and conclusions of their papers to the secretary-general, M. le Dr. Lucien Picqué, rue de l'Isly, Paris, who may be addressed for any information concerning the congress.

Special Staining Methods in Microscopy, Relative to Animal Tissues and Cells.

5. THE MUCIN CONSTITUENTS OF NEUROFIBROMATA AND OF THE CENTRAL NERVOUS SYSTEM. By DR. P. G. UNNA. Translated by A. HABERMAAS, M.D., St. Louis.

The beautiful specific red stain, which all mucin constituents of the skin (mast-cells, the mucin metamorphosis of collagen and epithelium) assume when treated with the polychrome-methylene-blue and properly decolorized, has led to some new discoveries which I shall briefly describe.

Some time ago I was impressed with the number of mast-cells in the neurofibrous tissue of a neurofibroma of the skin. In distinction to the cutaneous tissue surrounding it, which manifests the ordinary collagen, the tissue of the nodule, as the epoch-making work of Rucklinghausen has shown, consists of a very peculiar variety of collagen. The latter is not only destitute of elastin, for this peculiarity it shares with other varieties of fibromata, but is also peculiarly transparent and soft and manifests a remarkably regular structure, which corresponds to that of the epineurium. Unlike the surrounding cutis, when treated by the orcein-methylene-blue method, it presents an affinity for the methylene-blue instead of the orcein and assumes so marked a stain that in a well-prepared intercellular stain it can be distinguished from the adjacent tissue by the naked eye. It consists of a soft, rather amorphous, collagenous material, showing no fibrillar bundles, and in which at regular intervals spindle-cells, meagre in protoplasm, with rod-like nucleus, as well as large mast-cells, of a remarkably round form, are imbedded. If the neurofibrous tissue within the cutis were not differentiated from that of ordinary cutaneous fibromata by the fact that it arises from a nerve, that it develops from the connective tissue of the epineurium, and by the peculiar variety of its collagen, the great number, regular distribution and general round form of its mast-cells would distinguish it beyond a doubt.

The discovery referred to pertains to these peculiarly distributed and formed mast-cells of neurofibromata. In some recently prepared nodules of such a neurofibroma, the mast-cells under the new stain (polychrome-methylene-blue, glycerin-ether mix-

ture) appear twice the usual size. This is due to the staining of a large round area, in whose center the mast-cell itself lies, consisting of a blue nucleus and an area of dark-red granules. Under higher power this area is found to consist of a fine spongy reticulum, and is not granular, although it takes up the same red stain as the granules. We have here to deal with a spongioplasm peculiar to the mast-cells. A more minute examination of these cells shows that the area described does not surround the nucleus with its granular area equally on all sides, but only on one side. Most often the red spongioplasm, resembling an open shell, and in which the nucleus and its granules lie, is found more or less deeply situated. Sometimes processes of the spongioplasm surround the contained nucleus, meeting from both sides, so that the latter appears to be enveloped in a cloak, though not completely. In other instances the area is represented by an irregular plate, giving off thread-like processes in various directions and upon which the mast-cell (nucleus and granules) appears to lie. These cells somewhat resemble the "winged-cell" of tendons.

Again, in this instance bell-shaped, spongy masses are observed, with broad, veil-like processes, in whose concavity the nucleus and its granules lie.

That the area surrounding the mast-cell really belongs to the latter, and is not an independent structure surrounding the cell, is proven by the many pictures in which the spot can be clearly distinguished where the cell communicates with the mast-shell. At this point, the protoplasm surrounding the granules, though usually unstained, but by this method stained diffusely red, is seen to pass over into the protoplasm of the shell. The shell is a continuation of the sponge protoplasm, not the granular, beyond the limits of the granular area. The peculiarity in its formation lies in this: that it surrounds the granular area at a distance, coming in direct communication with it only at one point. For this reason in certain sections the granular area appears to be free, while the cell of red spongioplasm surrounds it at a distance, attaching itself to the wall of the lymph-space in which the mast-cell lies. Such pictures, examined alone, might lead to the mistaken assumption that this shell were an independent membrane, lining the lymph-space, or a deposit of mucus on the walls of the same. It is only necessary to know—and it can

always be demonstrated in a good collagen-stain—that in neurofibromata every mast-cell is surrounded by a rather regularly-rounded lymph-space; lining this in a more or less flattened manner, like endothelium, lies the spongy shell, while the granular area lies within this, attached to it at about its midst.

Since the other structures which exhibit the mast-cell reaction are not generally known, I shall add a few remarks concerning them. The original form of ordinary mast-cells, first recognized by Ehrlich, which arise by acid decolorization or neutralization (?) of basic dyes is that of a spherical, oval, spindle-shaped or irregularly twisted or branching group of granules, whose connecting protoplasm (spongioplasm) and nucleus are colorless and therefore invisible. The same forms are also obtained by neutral decolorization, preferably polychrome-methylene-blue, and decolorization with the glycerin-ether mixture, or a neutral orcein solution, with this difference, that in the group of granules (red) the nucleus is also stained (blue); the surrounding protoplasm is also generally stained somewhat.

Besides these generally well-known varieties, there are some which occur less frequently and may be unknown to some histologists. First, and this quite often, the mast-cell is surrounded by irregularly scattered granules, which resemble the granules of mast-cells. These may be considered free mucin, which will be taken up by the mast-cells, or has been shed by them. I consider the latter opinion the correct one. In a carcinoma I once found the connective tissue in parts thickly studded with mast-cell granules.

The second variety requires neutral decolorization, and is therefore not so well known. In this variety individual mast-cells are surrounded by a homogeneous substance, which manifests the reaction of the mast-cell granules, but contains no granules. In these we are dealing with either a mucin metamorphosis of the intercellular substance, or with the "shell-plates" described above, though not easily identified as such. This variety I have found most often in fresh scar tissue.

Thirdly, by neutral decolorization, in a variety of skin diseases, mast-cells can be demonstrated which present the usual form, but are peculiar in this respect, that they show the usual granulation only at one pole, or arranged laterally, instead of around the nucleus. The rest of the cell-body is constructed like that

of an ordinary spindle-shaped connective tissue cell. I consider this variety to be mast-cells in process of development.

Fourthly, by the same process of decolorization mast-cells can be demonstrated which present the usual form, but distinguished by the spongioplasm containing the granules, which assumes the same diffused red stain as the latter. The cells are to be considered either as mast-cells supersaturated with mucin, or as such in which the mast-cell granulation has become liquefied and dissolved.

Of these four rarer forms, which are, however, often met with by proper staining methods, the second and fourth, as is seen, bear some relation to the fifth variety, herein described and known as the "mast-cell with shell-plate." For in them we see an extra intracellular diffuse stain of the same nature as that observed in the granules. From this we may conclude that the mast-cells with "shell-plate" are to be considered the most complete, richest in mucin, and, so to speak, hypertrophic variety of mast-cells. We are dealing with a far-advanced mucin metamorphosis of connective tissue cells, which thus far has only been observed in neurofibromata.

After these investigations there can be no doubt but that the collagenous substance, which characterizes neurofibromata from other cutaneous fibromata, contains an amount of mucin peculiar to itself. The mast cells develop to a remarkable extent and here and there diffuse red stains, which do not belong to ordinary collagenous tissue, are observed, and which depend upon its mucin constituents. Do these constituents bear any relation to a development from nervous tissue? Is the greater abundance of methylene-red elements a characteristic of neurofibrous tissue in contradistinction to other varieties of fibrous tissue? and of neurofibromata as opposed to other cutaneous fibromata?

Perhaps a second discovery, made by the aid of the same staining methods, may throw some light upon this as yet unsettled question. In preparing sections of the spinal cord and medulla of man and rabbit I found that a large portion of a transverse section, especially of the white substance (anterior, posterior and lateral columns), was normally thickly studded with small bodies, which manifested a red mucin reaction similar to that of the mast-cells. These are of the most varied form and size, and partly fill in the interstices between the axis cylinders and neuroglia of the white

substance. They are homogeneous in structure and, with the decolorization mentioned, they take up a complete red stain, merging into blue. The largest red bodies lie within the middle and inner zone of the white substance. Toward the periphery they become much smaller and gradually disappear as they reach the margin.

Similar small bodies, of the same reaction, are also found in the anterior and posterior horns of the gray substance; likewise in the nerve trunks as they leave the spinal cord, where they rapidly diminish in number and size. Within the gray substance they follow the course of the nerve fibres which traverse it, but are distributed far more sparingly and irregularly than within the white columns.

Referring to the distribution of the red masses thus far described, I must not fail to remark that among the many methods of demonstrating them, which I shall detail below, there are very few which show the entire distribution of these masses. The glycerin-ether mixture is the means peculiarly adapted for the demonstration of mucin bodies. By most other methods, the small and less markedly stained bodies are lost to view and only a limited number of them remain, varying in the different preparations. In a complete demonstration, it can be shown that the mucin constituents make up a surprisingly large proportion of a transverse section of the cord, probably over one-third. It is a difficult matter to describe the form of these bodies; and to do so carefully would carry us beyond the scope of this article. I think the reader can obtain an adequate idea of their appearance if he take variously-shaped slips of red silk-paper and, by irregularly folding and concentrically rolling them, shape them into small rods. Then let him cut them into pieces of varying size. Some of these pieces will remain compact, others will partly enroll and resemble shell-like, laminated structures, with irregular processes; still others will fall apart into very thin membranes, hollow rods and small flat shavings. All such forms are present in the greatest variety and abundance—rounded, large and small, apparently solid lumps; likewise hollow rods, laminated, crushed and rolled membranes, shapes resembling slates, book covers and shells, to the smallest forms which possess a certain resemblance to various forms of bacteria.

The greater the number of bodies brought to view the greater

variety of forms is observed, while the methods which stain only a limited portion of them select special forms. Thus we sometimes find only small flat or rod-like bodies, or larger shell-like and hollow cylindrical bodies, which line the nerve channels in a narrow layer without coming in direct contact with the nerves at any point. If we stain a series of spinal-cord sections by various methods, it will be possible to bring out certain bodies in every section, differing in form and color, but similar in the four following respects, and therefore plainly related to one another: 1, in their paraneural position; 2, in their affinity for methylene-blue; 3, in their homogeneous structure; 4, in their form, traceable to the fundamental plan of a shell-like structure.

From these different pictures, brought out by different staining methods on similarly prepared alcoholic sections, we must not conclude that we are dealing with artificial products, but with masses of different chemical composition, whose individual constituents are made visible to a varied extent and degree by different staining methods.

The small bodies thus far described, which, despite their great variety of form, must be classed as formed bodies, are not the only structures which take up the methylene-red stain. Every section contains amorphous masses which show this characteristic, and which are connected with the small red bodies by commissures. They become clearly visible in such methods of demonstrating mucin as markedly decolorize nerves, ganglia and neuroglia. In this manner a complete knowledge of the distribution of these masses in transverse sections of the cord is obtained. Such a method exists, for instance, in the treatment of a section previously stained with polychrome-methylene-blue by a strong solution of potassium bichromate (5 per cent.), and subsequently decolorizing with the glycerin-ether mixture. The small red bodies are then stained reddish-brown; the amorphous masses a dark mahogany. From such preparations we may learn the following:

The place of beginning of the amorphous mucin substance corresponds to that of the small red bodies, and, like the latter, they are situated paraneurally; but instead of adhering to the side of the nerve, or of incompletely surrounding it like a half-tube, it fills out evenly the entire space allotted to the medullary substance, and surrounds the nerve which pierces it centrally on

all sides with a red-brown glossy or cylindrical mass. Furthermore these masses are observed at the periphery of a transverse section of the cord in the large and small lymph spaces at the side of the blood-vessels, filling up the lymph spaces completely for some distance. They possess no independent shape, but assume the form of the lymph-sinus which contains them. Here they of course do not lie perineurally but perivascularly, but still surround such nerves as chance to pass through the lymph sinus. The very large and oldest accumulations of this mucin often exhibit a somewhat darker or variously-colored dry cortical area, which is rent here and there probably through the action of the alcohol, so that the masses present a rosette form in section.

If it is of interest to know that out of the medullary sheath of the white matter mucin substances are constantly being carried into the blood by the lymph stream, as amorphous swollen masses, the existence of these masses is of importance regarding the significance of the small red bodies; for, comparing these small red bodies with the actual amorphous masses, which present the same or a similar color reaction, we cannot deny that the former possess an independent, natural form, even though it be very variable.

However, before I consider more closely the significance of these mucin structures, I must touch upon a circumstance of importance to them. The best methods of demonstrating the small red bodies are characterized by the fact that the axiscylinder is either stained very faintly or not at all. This is true of various decolorizing agents—for methylene-red which stains the bodies, and methylene-violet and methylene-blue which both stain the nerves. This renders the study of the relations of both constituents difficult.

In order to proceed in this, I have tried various methods of decolorization, and have finally found several which demonstrate both nerve and small red bodies simultaneously. A very good method is the fixation of polychrome-methylene-blue with glycin, and subsequent decolorization with aniline oil. The ganglion and nerve reticulum of a transverse section of the cord appears in beautiful violet stain. The small red bodies are not markedly stained, but appear as pink homogeneous masses, but their relative position to the axiscylinder is rendered very clear. The

axis cylinder does not, as in the methylene-blue stain of alcohol sections, lie apparently free in a medullary canal, but is surrounded by slightly-stained homogeneous or reticular translucent material, which are arranged in the form of variously stained sectors of a circle. The red substance forms one or two sectors; the others are stained light-blue—that is they appear to be made up of a homogeneous spongy reticulum which manifests the usual color reaction of albuminous bodies. The axis cylinder is also surrounded longitudinally by variously composed masses, which on cross section appear as variously stained sectors of the medullary sheath, and, what is of more importance, fill this out completely.

In other instances this blue substance surrounds the axis cylinder as a closed sheath, and is in turn surrounded by a cylinder of red mucin. This concentric arrangement agrees with Ranvier's concentric rings of the medullary substance. At all events all these pictures cannot be made to coincide with those of the red corpuscles, which we have been forced to indicate as stained in a specific manner for the latter, as by this stain they manifest themselves in the greatest mass-condition.

But we do learn with a degree of certainty from the aniline stains that, in preparations of the spinal cord hardened in alcohol, the entire medullary canal is filled with a glossy and stainable mass, though it appears empty with other staining methods; furthermore, that a portion of this material assumes the specific red stain of mucin bodies while another portion does not.

There can be no doubt, as all anatomists and neurologists who have kindly examined my preparations acknowledge, that the small red bodies bear some relation to the as yet obscure white substance of the central nervous system. Their significance, irrespective of the true explanation, seems to me to be in this, that by means of the red stain we can arrive more definitely at their chemical composition, and affirm, as far as histologic investigation can prove, that the medullary sheath, which invests the axis cylinders of the spinal cord, contains not only a fatty substance which turns black with osmium and is soluble in alcohol, but also a mucin body. To-day, when the idea of closed conduction for the entire nervous system has given way to the theory of multiple conduction on isolated conductors, the question as to the nature of this isolation and of the isolating medium is receiving considerable attention.

It seems to me a matter of secondary, or purely anatomical importance, whether these small bodies correspond to any of the thus far known elements of the medullary substance of the spinal cord; more especially whether they correspond to the cylindro-conical segments of Schmidt, Golgi and Ranvier.

These mucin bodies cannot be very different in the living state; for, since they are of the nature of mucin, alcohol while hardening them only serves to preserve them, and by the extraction of water causes them to shrink somewhat. Alcohol cannot produce a swelling in them, as might be supposed by the rounded appearance of many of them, for they are insoluble in it. Swelling, *i. e.*, the absorption of water, has a different effect upon the medullary substance. It leads to the formation of myelin drops, which bear no resemblance to the appearance of the small red bodies. Above all, the double contour and irregular sprouting form of the myelin drops is absent in the small bodies. On the other hand, we can better understand the myelin drops since we understand the mucin constituents of the medullary substance; for the drop-like swelling of mucin on the addition of water is characteristic thereof. We also have swollen mucin, but only in the amorphous red masses as described.

That alcohol does not completely destroy the medullary substance, but only extracts the fat, has been proven by the above-described staining of the medullary substance in alcohol sections, for in these a part of the remaining substance gives the mucin traction. Furthermore, the preparation showed that, besides fat and mucin, also a third, possibly albuminous body, is present in the medullary substance. It might be supposed that by the extraction of fat the medullary sheath would fall apart, and that such fragments are represented by the small red bodies. But this opinion seems to me untenable, since there are staining methods which bring out a continuous medullary sheath and on similar alcohol preparations. The red bodies are fragments only in an optical sense, and not a product of a retrograde metamorphosis of the medullary substance. They appear as fragments because the rest of the medullary substance is unstained. They are specifically stained mucin structures contained in the medullary substance, and the latter structure still requires considerable investigation as to its ultimate nature.

It might be of interest to compare these mucin bodies with the small bodies found in the peripheral nerves of man by Adam-

kiewicz. My attention was called to the similarity of these structures by Prof. Moyer and Dr. Edinger. For a more complete investigation of this matter I shall of course look to Adamkiewicz. I should like to add, however, that the red substance is also found in the nerve trunks, as they have the spinal cord. Here it lies partly internal, partly external to the medullary sheaths, and is situated so peculiarly that its site may be of assistance in determining its mode of development.

Here are found large neuroglia cells whose protoplasm shows a separation of mucin similar to that in the spinal cord. Under low power the nerve trunks appear to contain irregularly distributed, spindle-shaped mast-cells. Higher powers, however, prove that the substance showing the reaction of the mast-cell granules does not make up the entire cell mass, and does not possess a granular structure, but usually forms a continuous coarser homogeneous mass, arranged in folds at one side of the nucleus. In other situations the masses lie extracellular, but still in close relation to the neuroglia cells. These masses, thus set free, belong to the medullary substance.

It therefore seems to me that these free mucin bodies of the spinal cord originated within cells, *i. e.*, the neuroglia cells of the spinal cord. Thence they have gradually formed a mucin sheath along the axis cylinder. However, I have never found any intracellular mucin in the cord, and the abundance of extracellular mucin renders it difficult to ascribe a connection of the latter with the relatively sparse neuroglia cells of the cord. In the nerve-trunks, however, where both constituents are sparingly distributed and found in close contact, their origin is easily traced, even where only extracellular mucin is found. Here further investigations, especially concerning the development of the spinal cord, will soon hasten an explanation.

To close this article, which trespasses alike upon the field of anatomy and neurology, for practical purposes I append a number of methods of demonstrating mucin in the cord. I shall also suggest some staining methods which, by demonstrating the other constituents of the spinal cord, may be of general interest. For the sake of brevity, I shall select four chief types of mucin, in order to conveniently divide up the methods; but I shall again state that every method will demonstrate the mucin with a somewhat different distribution, distinctness and shade of color, so that the division is a somewhat artificial one. As the first type,

the glycerin-ether mixture must be considered. By this method we obtain the most general distribution of the mucin, which appears in solid lumps, sometimes of considerable size. The second type demonstrates chiefly those shell-like bodies which line the nerve channels at some distance from the axis cylinders. A third type demonstrates the mucin alongside of the axis cylinders and medullary sheath, which latter substance is more or less completely stained blue. In this type the relations of the various parts can be observed. The fourth type embraces those methods by which amorphous mucin is best demonstrated.

All stains have been obtained with the polychrome-methylene-blue solution. In reference to this solution, Dr. Grübler, of Leipzig, recommends taking a concentrated solution and mixing it with one-tenth to one-twentieth its volume of glycerin. In this somewhat diluted but more useful mixture the preparations are well stained in one hour, and resist all methods of decolorization. They may, however, be left in the solution a whole night. In the following outline the decolorizing methods refer to such deep-blue stained sections of spinal cord and medulla as have been previously hardened in absolute alcohol. These are washed with water and placed in the fixation and decolorizing solutions, where the "red" substance assumes a metachromatic stain, varying from violet, bluish-red, carmine, cinnabar, orange, yellowish-red, brownish-red, mahogany-brown to a brown-violet, depending upon the method employed. After the decolorization the sections are placed in alcohol, oil of bergamot and balsam.

TYPE I.

1. Glycerin-ether mixture (Schuchardt or Grübler), preferably well-diluted with water; water rather long; absolute alcohol short.
2. Acetic acid water (3—5 drops acetic acid to watch-glass of water); water; alcohol.
3. Alum water (a knife-tip of alum to a watch-glass of water); water; alcohol.
4. Aqueous tannin solution (33 per cent.); water; alcohol.
5. Ferric chloride water (3—5 drops of official solution of ferric chloride to a watch-glass of water); water; alcohol.
6. Nitric acid water (3—5 drops of nitric acid to a watch-glass of water); water; alcohol.

7. Hydrochloric acid water. Same as preceding.
8. Solution of potassium bichromate (10 per cent.); water; commercial solution of H_2O_2 ; alum water (see 3). Dry upon the slide; aniline oil; xylol; balsam.
9. Solution of potassium bichromate (1 per cent.); water. Dry upon the slide; aniline oil; xylol; balsam.
10. Dry upon the slide; filtrated mixture of aniline oil with excess of alum; xylol; balsam.
11. Glycin solution (a knife-tip of glycin to a watch-glass of water); water; glycerin-ether mixture, diluted with water; water; alcohol.
12. Solution of potassium bichromate (10 per cent.); water; glycerine-ether mixture; water; alcohol.
13. Carbolic acid water (1—2 per cent.); water; alcohol.

TYPE II.

14. Filtrated mixture of absolute alcohol, with excess of sugar; alcohol.
15. Filtrated mixture of absolute alcohol, with excess of sulphur-barium; alcohol.
16. Aqueous tannin solution (33 per cent.); alcohol, with 3—5 drops of acetic acid; alcohol.
17. Filtrated mixture of absolute alcohol, with excess of potassa sulphurata.

TYPE III.

18. Dry section upon slide; filtrated solution of excess of glycin in aniline oil; xylol; balsam.
19. Solution of glycin (a knife-tip of glycin to a watch-glass of water). Dry section upon slide; aniline oil; xylol; balsam.
20. Aqueous tannin solution (33 per cent.); water. Dry section upon slide; mixture of 2 drops nitric acid upon a watch-glass of aniline oil; xylol; balsam.
21. Solution of potassium bichromate (10 per cent.); water. Dry section upon a slide; aniline oil; xylol; balsam.

TYPE IV.

Amorphous, especially well with methods 2 and 8; also with methods 3, 4, 6, 7, 9, 10, 11, 14, 18.

Axis cylinders stain with methods 18 to 21, and 4, 10, 16.

Ganglia stain especially well with methods 8, 9, 14, 15, 18, 19; very well with methods 2, 5, 10, 11, 20, 21.

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Editorial.

DILLETANTE THERAPEUTICS.

We hardly know upon whose shoulders the blame for this peculiar condition should rest; but any one who has observed the modern trend of medication cannot have failed to notice that a great proportion of our practicing physicians are dillettantes in the art of prescribing. The pendulum has swung from one extreme to the other; and it is to be hoped that, if the oscillations continue, the right and proper medium will be finally attained. Many can still recall to mind the enormous and nauseous doses which patients were forced to swallow, and the disastrous effects which frequently followed the well-meant but illy-directed efforts of the Dr. Sangrado of the period. As is noted in fashion, a complete revolution declared itself; and as a result minimal doses, put up in a most pleasant manner, were adopted.

The final outcome of this radical change is now before us. It may be observed in our literature, periodical and other. Doses have dwindled down to a mere nothing, and clinics and hospitals

have increased numbers of patients. An almost insane fear has taken hold of the profession, which no longer dares to administer active treatment. Even surgeons have this terror. They use such dilute antiseptic solutions that they could more profitably substitute boiled water for them, and with better hopes of ultimate success. We no longer hear of "ten and ten" being given to a patient, and yet it was a most valuable dose in the cases in which it was indicated. Syphilitics are given remedies in such small doses that the effects which should be produced do not manifest themselves. In them, as well as in others in whom medication has been neither active nor massive enough, nerve troubles, peripheral and central, follow as a natural consequence of the therapeutic cowardice which has been engendered by precept and by advice; diseases of the nervous system are on the increase and still continue to be so, until medication becomes rational.

The teaching of therapeutics has been a much-neglected branch in our medical colleges. Not that lectures are not given on the subject, but the true action of remedies in different and varying doses is not dwelt upon, and, as a result, the young graduate is loaded with prescriptions labeled duly for what disorder they are good (or not); and with this armamentarium he looks upon himself as a veritable medical Paladin. The professors and students alike seem to forget the principal ingredient of every prescription—brains. This is a most deplorable condition indeed. To increase the trouble, proper dosage is equally neglected; and small and inefficient doses are but too often the result, diletante therapeutics following as a natural consequence. Some few, who are capable of recognizing the needs of a case, become each in his turn a *persona non grata*, and is accused of giving "horse-doses;" but, strange to relate, he is usually successful in the results he achieves.

It is a very deplorable fact that bacteriology, surgical pathology and surgery occupy nearly the entire attention of students whilst undergraduates; and when they face the treatment of disease, they nurture and cultivate such a total disregard for therapeutics that they are content to limit themselves to a few formulæ of doubtful worth. This is further aided by medical societies, whose proceedings are regarded as valueless unless specimens of surgical prowess are exhibited. Medicine has ar-

rived to such a point, especially in large cities, that to be a physician is to argue one's self unknown. We are thankful that the country doctor is still pursuing the even tenor of his way and daily demonstrating to his dilettante brethren that medicines properly administered in proper doses not only does good, but keeps up the proper physical tone of the bone and sinew of the land and does not, through an improper appreciation, contribute so largely to the filling-up of our insane asylums.

MUCH-NEEDED INSTRUCTION.

Whilst our medical colleges are pointing with pride to their large faculties, numerous and commodious laboratories, and higher requirements with lengthened terms of attendance, we notice that they lack in some essentials to a proper and thorough training. We do not intend to take up all these lacunæ, but only desire to call attention to a very few of them. In the first place, anatomy cannot be regarded as taught unless comparative anatomy is made an adjunct study. No one knew this better than John Hunter; and the Hunterian Museum of Anatomy, which stands to-day unrivalled as a collection so far as the work of any one single individual is concerned. Such material to aid the teaching of human anatomy is not only of scientific interest, but is an aid whose full value can only be appreciated by those who have the advantage of obtaining it. What embryology is to developmental anatomy, the comparative study is to the grosser details.

As a supplementary branch of what to-day is regarded the most fascinating study in the medical curriculum, and which is almost totally neglected, is ante-natal pathology. The almost total lack of literature on the subject is the strongest indication of the small amount of interest which has been taken in it. And yet there is no more fascinating study for the medical man. Ante-natal pathology and teratology are not given that attention in medical colleges which the importance of the subjects demand. A small hint given here and there constitutes the sum total of the teaching devoted to these branches. Much has been written on the latter by authors. The former has been sadly neglected, and is almost a *terra incognita*.

We hope to see the day when these gaps shall be filled. They

are difficult subjects to undertake, it is true, and require constant study, but the returns which they give will more than compensate for the pain and labor devoted to them. As our colleges are enlarging their curricula and courses of study, we have merely thought that a timely hint in regard to the matter alluded to might not fall upon entirely barren soil.

The Second International Congress of Gynecology and Obstetrics will be held in Geneva, Switzerland, from August 31st to September 5th inclusive. The sessions of the congress will be held in the grand hall of the university. The following are the subjects for the set discussions and the names of those who will open the same:

Gynecology.—1. "Treatment of Pelvic Suppurations." Referees.—Drs. Bouilly Paris; Kelly, Baltimore; Zweifel, Leipzig. 2. "Surgical Treatment of Uterine Retro-Deviations." Referees.—Drs. Küstner, Breslau; Pozzi, Paris; Polk, New York. 3. "What Method of Closing the Abdomen Presents the Best Guarantee against Abscesses, Eventrations, and Hernias?" Referee.—Dr. Granville-Bantock, London.

Obstetrics.—1. "Relative Frequency and Most Common Forms of Pelvic Contractions in Different Races, Groups of Countries, or Continents." Referees.—Drs. F. Barnes, London; Dohrn, Königsberg; Fochier, Lyons; Kufferath, Brussels; Jentzer, Geneva; Lusk, New York; Rein, St. Petersburg; Pawlik, Prague; Pestalozza, Pavia; Treub, Leyden. 2. "Treatment of Eclampsia." Referees.—Drs. Charles, Brussels; Charpentier, Paris; Halbertsma, Utrecht; Löhlein, Giessen; Mangiagalli, Milan-Pavia; Parvin, Philadelphia; Smyly, Dublin.

The official languages of the congress will be English, French and German. An exposition of gynecological and obstetrical instruments and appliances will be held during the congress week. As the national exposition of Switzerland will be held at the same time as the congress, those intending to be present are advised to secure hotel accommodations in advance. Further information may be obtained by addressing the secretary-general for North America, Dr. Fernand Henrotin, 353 La Salle Avenue, Chicago, Ill.

Dermatology and Syphilology.

Pitting about the Hair-Cups; Atrophic Change in the Skin in Certain Nervous Disorders of Central Origin.—Dr. William Browning described, before the American Neurological Association (*Am. Med.-Surg. Bull.*), a presumably hitherto unrecognized alteration in the skin. From some seven or eight years' observation of such cases he was able to give the limits of its occurrence. So far it has been seen only in progressive muscular atrophy of spinal origin, or in cases complicated with atrophy evidently likewise due to chronic precornal disease. In other troubles attended by atrophy, as infantile palsy, neuritis, pseudo-hypertrophy, etc., it has not been found. It is hoped that it may prove a useful help in differential diagnosis, especially between the forms due to peripheral and central disease. The change consists of an areola-like faint depression, frequently oval, in the direction of the lines in the skin, though it may be irregular or circular in form, about the exit of each hair. Usually the depression is a trifle paler than the surrounding skin, resembling, but not really being, a minute scar. It is not observed in specially hairy regions like the scalp, but only over the seat of muscular atrophy, notably on the leg and thigh, though also on the upper extremities. All these patients had reached or passed middle life. A drawing to show the appearance in one case was exhibited.

Losophan.—Felix Descottes formulates the following conclusions (*Indian Lancet*): In the treatment of leg ulcers losophan acted quite as well as any of the medicaments employed in this condition. In primary lesions of a syphilitic character losophan had a very beneficial action and determined a rapid cicatrization of chancre though employed to the exclusion of the general constitutional treatment. The curative effects of losophan were especially manifested in simple chancre. Patients suffering from folliculitis and eczema, although not always completely cured under treatment by losophan, experienced in all cases a great amelioration of condition. In circumscribed lichen simplex losophan successfully cured the disagreeable and sometimes very painful pruritis which almost always accompanied this malady. In prurigo with obstinate pruritus the same bene-

ficient result was obtained. Descottes employed losophan in much stronger mixtures than cited by other authors and never noted any irritation of the skin. He used eight per cent., ten per cent., and sometimes twenty per cent. ointments and solutions, and was successful in some conditions which had not heretofore responded promptly to losophan.

Blood Changes in Syphilis.—Neumann and Konreid (*Wiener klin. Wochenschrift*) have made a study of the blood in all stages of syphilis, with the following results:

1. The hemoglobin is diminished in the primary stage from 15 to 30 per cent. It remains diminished during the first part of the eruption and in early treatment, but as the mercurials are pushed it rapidly regains its normal percentage.

2. Older, contracted cases of secondary syphilis have only from 45 to 75 per cent. of hemoglobin. The anti-syphilitic treatment in these cases increases the hemoglobin, but does not raise it to normal.

3. The late forms of tertiary syphilis are characterized by a low hemoglobin percentage, which improves under mercury.

- 4, 5, 6. The red blood-corpuscles are not diminished in the primary affection, but when constitutional symptoms appear they are reduced one-third. Anti-syphilitic treatment brings them back to normal. Non-treated secondary forms have about one-third the normal amount, which becomes normal under treatment. In the tertiary stage there is some diminution. The number becomes restored by treatment.

7. The number of white corpuscles are diminished in proportion to the diminution of the red corpuscles.

Why is the Negro Black?—This question is propounded by *The Hospital*, which then proceeds to answer it as follows, basing its statements on an article in an unnamed American contemporary:

“It has occurred to a writer in an American medical newspaper to discuss the question of the blackness of the negro’s skin. It will be a revelation to many to learn that the baby negro is not born black. Even so long ago as 1765 LeCat noticed that the newly born negro is of a reddish color. That observation has since been frequently confirmed; and it is now pretty widely known that the baby negro begins to follow

in the footsteps of his parents as regards color within a few days after birth, yet at the moment of birth he shows a disposition to aspire toward the civilized races, being white, or, at worst, red in hue. It is generally assumed that the primeist of all the causes of a negro's blackness is the hot sun beneath whose more or less vertical rays he is doomed to live. There is, however, a physiological condition of the skin which differentiates that organ from the integument of an European. 'The negro,' says our American scientist, 'possesses a more developed vascular sudoriparous system than we do.' In other words he has more and larger sweat glands, and they are more liberally supplied with blood. By means of these he perspires much more abundantly. This condition is possibly a contributory factor in his blackness. It is an important element in the investigation to remember, however, that the blackest of all black people are almost invariably found under certain very definite climatic conditions. That is to say, they are found where great heat, strong light, and much atmospheric moisture are in combination. For example, 'the blackest negroes in Africa are those who live in Guinea, where the greatest amount of rain annually falls.' On the other hand, 'the people who live in the dry section of the Nubian Desert have red skins.' Heat, light and humidity are all causes of pigmentation, and if to these we add the fact of the highly 'developed vascular sudoriparous system of the negro, we have traveled as far as our American investigator is able to help us. The question is one of genuine scientific interest; and, perhaps, when the Matabele, and the Dervishes, and the Sudanese have all settled down quietly in the ways of civilization and order, science may turn her attention in this direction, and tell us much that is both new and interesting about those races who differ so markedly from ourselves in color, character and many other particulars."

The Anatomy of Trichophytosis.—As the result of his study of the various forms of trichophytosis, Waelsch reports (*Archiv für Dermatologie und Syphilis*) as follows:

The trichophyton tonsurans grows through the cortex of the hair, upward and downward, for a variable distance, but spares the hair-bulb. It develops in the lower corneous layers, as well as in the cells of the hair-follicle in process of cornification (*Am. Jour. Med. Sur.*).

By its growth in the skin the fungus produces inflammation, which is indicated by exudation on the surface, proliferative processes in the epithelial layers, and affections of the follicles and their appendages—folliculitis, perifolliculitis, and eventually destruction of the follicle.

The severity of the inflammation, especially the depth to which it penetrates, is dependent upon the anatomical structure of the parts affected. Where the follicles are superficial the inflammation will be less than where they are deep-seated. Other elements determining the degree of inflammation are the susceptibility of the individual and the virulence of the fungus, both of which vary. The presence of hyphomycetes alone is sufficient to cause severe inflammatory phenomena, and to ascribe severe inflammation to a mixed infection with staphylococci is not justifiable.

From a pathologico-anatomical point of view all the disease processes in the various forms of trichophytosis are the same, varying only according to the anatomical structure of the affected parts, the susceptibility of the individual, and the virulence of the fungus.

Erythema Nodosum of Syphilitic Origin.—MM. Beurmann and Claude, in a paper upon this subject (*Annales de Dermatologie et de Syphiligraphie*) present the following conclusions:

Erythema nodosum, a variety of polymorphus erythema, occurs frequently in the course of known infectious maladies as a secondary affection. Primary erythema nodosum results probably from a latent infection.

Cutaneous manifestations reproducing with absolute fidelity the clinical type of erythema nodosum are met with in the course of syphilis. This erythema may be due to a coincidence, and may result from some infection superadded to syphilis; but it is most frequently determined by syphilis itself.

There exists between syphilitic erythema nodosum and gumata of the skin and subcutaneous tissues a series of intermediate affections producing between these two kinds of lesions an insensible transition, and showing that between these two clinical types there is only a difference in intensity in the anatomo-pathological process.

A Cure for Leprosy.—The hope of finding a cure for that most terrible of all diseases, leprosy, is so active that it has pro-

duced almost as many disappointments as in the case of the somewhat analagous problem of snake-poisoning (*Indian Lancet*). The publication of every fresh form of treatment, however, which claims to be a specific is always of interest, when put forward in good faith by competent medical authority, and the claim therefore, now made by Dr. C. S. Durand, M.D., of the F. C. Mission, Harda, Central Provinces, is deserving at least of so much attention as shall lead to its thorough investigation. Dr. Durand's attention was attracted by the remarkable similarity which exists between the symptoms of ergot-poisoning, and those of leprosy, and on the principle of curing like with like, he entered upon an extensive series of experiments, which have now been continued for over two years, with decoctions of ergot applied in the crudest manner both internally and externally. As the result of these experiments he claims that all traces of ulceration can be removed by ergot, and that, although it is premature to say the cure is permanent, he can already point to cases in which there has been no return of the malady for twenty months, though others have required occasional subsequent treatment to stave off further development. He goes so far as to assert the belief that "nearly every case of leprosy in the early stages, when the constitution and general health are fair, can be promptly arrested and held in check indefinitely, while radical cures should be common," and adds: "Most cases, even in the more advanced stages are quickly benefitted." There is no secret about the method of treatment, which consists merely in applying varying strengths of ergot dissolved in alcohol, both as a dressing and internally, Dr. Durand remarking that his directions as to the size and frequency of the dose and the strength of dilution may be varied indefinitely without apparently destroying the effect. He has been much hampered in his experiments owing to only having beggars and other nomad sufferers to treat, upon whom he was unable always to make as prolonged observations as could have been desired, but the cases he describes, in which a cure or improvement is claimed to have been effected, are so striking that his suggestion for similar experiments to be undertaken in leper asylums, where there is better opportunity for accurate and prolonged observation, would seem to be worthy of adoption, if only with a view to preventing the building up of false hopes.

O-D.

Medical Progress.

THERAPEUTICS.

New Treatment for Epilepsy.—A new treatment for epilepsy is recommended by Bexhtereff in the *Presse Médicale*. He claims marked success and gives the details of treatment as follows. He puts the leaves of *adonis vernalis* about thirty or forty grains in five ounces and-a-half of boiling water, filters, and adds from 150 to 170 grains of bromide of potash, from two to three grains of caffeine, and of this mixture gives from four to eight teaspoonfuls a day in water or sweetened milk. With this treatment he claims to have produced an entire cessation of the attacks, or a diminution in their intensity and frequency.

Sero-Therapy of Exophthalmic Goitre.—In a case of exophthalmic goitre in a woman, 32 years old, Gioffredi (*Semaine Médicale*) observed improvement follow hypodermic injections of the blood-serum of a thyroidectomized dog presenting all of the phenomena of cachexia strumipriva (*Med. News*). The serum obtained with antiseptic precautions was sterilized, and had added to it .1 per cent. of cresol. In the course of forty-seven days thirty-seven injections of from .5 to 1 ccm. each were made; and after an interval of two weeks seventeen additional injections, each of 2 ccm., in the course of twenty days. In the course of the treatment there was almost complete cessation of the headache, the anorexia, the agitation, the trembling, diminution in the exophthalmos, improvement in the general condition, and a return of menstruation. This result, however, was but temporary, as the symptoms returned gradually upon suspension of the treatment. When the dose of the injection exceeded 1 ccm. there occurred slight febrile reaction.

Splenic Extracts in Therapeutics.—Dr. W. Cohnstein (*Allgemeine medicinische Central-Zeitung*) having found, like Danilewsky, that the use of a watery extract of the ox's spleen, whether given by the mouth or subcutaneously, gave rise to a notable increase in the number of the red blood-corpuscles in dogs and rabbits, has proceeded to employ it therapeutically. He reports upon its use by several physicians in twenty-three

cases. In one of them the disease was leucemia; the others were examples of anemia or chlorosis. In the case of leucemia there was only a transitory effect observed—not really therapeutic. On the other hand, in the majority of the cases of anemia and chlorosis the action of the extract was very striking. The first signs of improvement were seen in the subjective symptoms of debility, loss of appetite, constipation, headache and dysmenorrhea. Objectively, the pallor disappeared, and often there was an increase of hemaglobin or of the number of the red blood-corpuscles. In many cases the patients gained flesh notably. In many others there were no objective signs of improvement. In no instance was any unpleasant effect observed.

The splenic extract employed by the author was one known by the trade name of "eurythrol." It is a watery extract to which salt has been added, partly to preserve it and partly to give it a better flavor. It is described as resembling Liebig's beef extract. The amount to be given daily is from one to two teaspoonfuls, dissolved in hot water.

Iron and Manganese Citrate Hypodermatically as a Hematinic.—J. M. Costa states (*Ex.*) that the use of iron hypodermatically is advocated by the author as an efficient mode of introducing it into the system in cases where a rapid result is desirable. For this purpose he uses a 20 per cent. solution of iron and manganese citrate, injecting 3 grn. (0.2 gme.) of the salt daily. The injections are made under the usual antiseptic precautions.

The employment of this form of medication, as used in a number of aggravated cases, in no instance caused any disturbance or pain.

Trials were also made of iron peptonate and iron albuminate, but these salts were found to be unsuitable, as their solutions were turbid and did not keep well; whereas that of the iron and manganese citrate, made with boiling distilled water, was perfectly brilliant and kept well; and by its use the number of red corpuscles were increased from 2,184,000 to 4,680,000 in two months, using at first one dose daily and after a month two daily doses of 3 grn. (0.2 gme.) each.

Dr. Da Costa says, however, that the hypodermic form ought not to be used indiscriminately, since it is most unnecessary to subject a patient to this form of medication; but where rapid

effects are desired—as after exhausting hemorrhages, or in anemic persons with delicate digestion who are unable to assimilate iron by the stomach at all, or in gastric ulcer where the administration of iron is desirable but is contraindicated per os, or when iron constipates too much when given by mouth, or when decided action on the nervous system is promptly required—the use of this method of treatment is exceedingly advantageous.

Chronic Constipation and its Treatment.—The causes of constipation according to James D. Staple (*Med. Times and Hosp. Gaz.*) are:

1. Lack of tone in the muscular coat of the intestines causing a decrease in peristalsis, usually due to imperfect regional innervation.

2. Deficient secretion or excessive absorption.

People leading sedentary lives are predisposed to constipation.

The symptoms (excepting in those cases due to organic disease) are:

Loss of appetite, imperfect indigestion, nausea, headache, irritability, mental depression, bad complexion, acne, sleeplessness. Hysteria in the female and hypochondria in the male have been often caused by constipation, and it is even stated that a condition of disease bordering upon insanity may be brought about by a long continued defective formation of fæces and imperfect action of the bowel.

Moreover, the material which should have been removed will accumulate in the blood, and in consequence such diseases as gout, rheumatism, etc., may be developed.

The treatment may be divided into (1) non-medicinal and (2) medicinal. Under the non-medicinal we may include: (a) correction of diet; (b) fluids before breakfast; (c) exercise; (d) cold bath or rubbing the body with a rough towel; (e) kneading the abdomen; (f) going to stool at a regular set time.

In the medicinal treatment of chronic constipation avoid giving purgatives, the reason being that patients acquire the habit of depending on them. Small glycerin suppositories are highly recommended, being rapid and certain in action and their use unattended with griping or irritation of the gastro-intestinal tract. In cases where aperients must be given cascara sagrada is recommended, but even in these cases it is well to begin with some natural mineral water.

The Absorption of Iron Preparations.—It is now a generally accepted fact that inorganic iron preparations are practically worthless in blood therapeutics, while organic compounds exert varying effects in the ratio to their absorbability. The albuminate preparations have a certain degree of value because they supply, in loose combination, the components from which the system can compound the required form of iron, just as it is abstracted from all food. This natural form of iron, as it is found in the tissues, and particularly in the liver—where it “comprises the reserve store for blood formation”—is ferratin, as substantiated by the studies of Schmiedeberg, Marfori and Filippi, and confirmed by other equally high authorities, including Prof. Chittenden, of Yale.

These investigators have proved that ferratin is present in all human organisms; that it is absorbed from animal and vegetable food, and is stored principally in the liver—“to feed the blood.” When, therefore, the physician treats his anemic patient with carefully selected diet, exercise, hygienic measures, etc., he unconsciously enlists the aid of the digestive and other organs to manufacture the required ferratin from the food ingested. This is a laborious task, because the organs are weak; and it is empirical practice, because there is too much uncertainty in trusting to the debilitated system to work its own recovery, even if useless inorganic iron preparations are added.

Schmiedeberg and Marfori having proved the identity and function of ferratin by conclusive physiological tests, which facts are now incorporated in text-books and medical literature, proceeded to duplicate natural ferratin by a synthetic process in order to make the product available for therapeutic use; they succeeded in combining tartrate of iron with albumen by a complicated chemical process, yielding an iron albuminic acid—or *ferratin*. This product is chemically and physically identical with the natural ferratin as it can be precipitated from pigs' liver (containing the highest percentage of ferratin among animal food) or spinach (highest percentage among vegetables); and further physiological and clinical tests have proved that this product is quickly absorbed and assimilated, supplying the requisite amount of iron to the blood without taxing the system, and increasing the appetite and quickly stimulating the vital power.

There is nothing vague about the claims of ferratin. It is a logical scientific agent designed on careful consecutive investigations by the highest international authorities; and it has clinically redeemed every promise made for it, by increasing blood-corpuscles and hemoglobin, improving appetite and general well-being, and markedly increasing body weight.

Sajous' Annual for 1895 quotes the unqualified clinical tests and endorsements of ferratin of such authorities (in addition to the authors of the product, Schmiedeberg and Marfori) as German See, Jaquet, Banholzer, John Harold and Hugo Wiener, the foremost therapeutists of Germany, Italy, France, England and Austria. In America, ferratin has been endorsed in print by Einhorn, of New York, Fackler, of Cincinnati, Chittenden, of New Haven, Perekhan, of Chicago, Spencer, of Cleveland, and verbally or in practice by hundreds of the foremost practitioners in all parts of the United States.

There are many iron compounds and blood tonics, all clamoring for preference; none has the scientific status, based on physiological investigation and proof and endorsed on clinical records by authorities of highest rank and unquestioned sincerity, as possessed by ferratin, and duly recorded in all standard text and reference books of recent issue.

The Treatment of Measles.—According to the *N. Y. Medical Journal*, in the *Lancet* of recent date, Mr. A. Dunley Owen remarks that during the early months of this year an epidemic of measles of a severe type visited Northampton and the surrounding district, and there was an unusually high mortality from this disease, chiefly, he believes, from concurrent bronchial and pulmonary inflammations. Of the cases that fell to his share he took notes of over three hundred with a mortality of only four, of whom one died from capillary bronchitis three hours after he was called in, and the others were under two years old and succumbed to broncho-pneumonia. He attributes this low rate of mortality to the method of treatment that he has invariably adopted—namely, to order jacket poultices, to be changed every three hours, as soon as any indications of measles show themselves and before the rash appears, and he thinks this has been beneficial, for death has occurred only in those cases in which the mother discontinued the poultices after the first application, or, as in one case, thought proper not to poultice at

all. The only medicinal treatment adopted has been ipecacuanha wine with acetate of ammonia, with a boric-acid wash for the eyes in those cases which were complicated by catarrhal inflammation of the lids. Stomatitis occurred in about one-half of the cases, and invariably yielded to the application of a saturated solution of chlorate of potash to the inside of the mouth, the children being too young to use a mouth wash. Convalescence proved slow in nearly all of these cases.

It is a curious fact, says Mr. Owen; that children living in towns gain strength far more rapidly than those in the surrounding country districts, and he thinks it is owing to the fact that town workers earn higher wages, thus enabling them to procure a better diet for their children.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Clinical Observations on Auto-Intoxication of Gastro-Intestinal Origin. — Dr. Philip Marvel, in a paper of some length on the subject of auto-intoxication, read before the Medical Society of New Jersey (*Med. Rec.*), acknowledged our indebtedness to Bouchardt; gave a definition of auto-intoxication; spoke of the toxicity of the urine, bile, and other secretions; dwelt more especially upon the influence of over-eating; and related several interesting cases of acute and subacute or chronic nature.

Whence the origin of these poisons? All toxic substances existing in the excretions must be produced by decomposition of animal or vegetable food received within the body, by fermentative action of bacteria, and disintegration and restoration of cell life within the body itself. In the maintenance of life there was constant repetition of the processes of building up and breaking down.

Atlantic City, being a pleasure resort, gave many examples of the effects of over-eating. Among symptoms of acute auto-infection from undigested food were tympanites, burning sensation, eructation of gases, acid vomiting, diarrhea, increased formation of sulphuretted hydrogen, stools of greenish color, cramps, vertigo, headache, lightness of head, etc. There might be cramps, coma and death. In one of his acute cases the patient died the second day, and congenital absence of one kidney was found, but the one present was healthy.

The Action of Ether and Chloroform on the kidney is a matter of interest, and is being investigated by a number of the medical profession. From a critical analytical study of 130 cases of narcosis, in which the urine was examined prior to the operation and from three to six days after operation, both by chemical analysis and microscopical examination, Eisendrath, in the *American Journal Medical Science*, draws the following conclusions:

1. Albuminuria, which is already present, is increased more frequently by ether than by chloroform.
2. Albiminuria makes its appearance, however, more frequently after chloroform-narcosis than after ether-narcosis—that is, in the proportion of thirty-two to twenty-five.
3. Their action is equal upon amyloid disease of the kidney.
4. Tube-casts, with and without albumin, are found with equal frequency after chloroform and ether-narcosis, but disappear more rapidly in the case of ether. This harmful late action of chloroform upon the kidney has been proven to be greater than that of ether by E. Fraenkel.

The author reports in detail an interesting case of death following chloroform-narcosis, in which the pathological lesion was a necrosis of the parenchymatous cells of the kidney.

The Pathogeneses of Abdominal Fat Necrosis.—One of the most obscure conditions with which the clinician has to deal is that known as fat necrosis, many years ago observed by Ponfick in bone marrow, and later described by his assistant, Balser, as occurring in the pancreas (*Med. Rec.*). The condition has since been frequently noted in association with pancreatic disease, especially hemorrhage, although it may occur independently. The white necrotic areas, of varying size, have been shown by Langerhans to contain lime in combination with fatty acids.

Of the cause and mode of origin of this condition there is as yet little definite knowledge. It has been induced in the dog by injecting pancreatic extract into the fatty tissue, and in cats by ligation of the pancreas or its vessels, and by transplantation of pancreatic tissue. In two cases Welch found the bacillus coli communis. Stockton, in two cases, found bacilli of varying size, some with square and some with rounded extremities.

The latest contribution to the pathology of this interesting subject is made by Ponfick, who has succeeded in isolating from the fluid obtained from an area of subperitoneal hemorrhagic infil-

tration upon the posterior wall of the abdomen, in a fatal case of fat necrosis, a bacillus morphologically resembling both the bacterium coli commune and the typhoid bacillus, but differing from both of these in culture and in pathogenic properties. The organism is described as a fairly large bacillus, with rounded extremities, about two or three times as long as it is thick, and possessing pathogenic activity towards white mice and rabbits. It is capable of independent movement, stains readily with aniline colors, and does not liquefy gelatin. In cultures it proved to be a facultative anærobie. The patient was a corpulent man, forty-three years old, who died in the course of a few days with symptoms of intestinal obstruction.

DISEASES OF WOMEN AND CHILDREN.

New Method of Inducing Abortion.—A new method of inducing abortion is given by Dr. A. Duhrssen in *Samb. Klin. Vorw.*, says the *Medical and Surgical Reporter*. He has practiced it in nineteen cases with the best results. In all cases under seven months, whether he wished to empty the uterus of all its contents, whether of the entire ovum or of the placenta alone, or whether the os uteri is partly open or entirely closed, he packs the uterine cavity with as much iodoform gauze as it will contain, and then fills the vagina with salicylate wadding. In a few hours the pains begin, and then cease in a few hours more, and at this time any bleeding present will also have ceased. When the pains have ceased it will be time to remove the tampons, and in doing so it will generally be found that the fetus and placenta are already in the vagina, or when the ovum is small in the balloon-shaped cervix, the internal os and fundus uteri being well contracted. In some cases the strength of the pains will have expelled the uterine contents and also the tampons through the vulva. The further advanced the pregnancy is the more certain is the activity of the tampons on the uterus. He thinks that for the cautious practitioner this will prove to be an excellent and safe method of emptying the uterus.

Perimetritis in Infants.—Perimetritis may occur in infants from vulvitis. According to the *British Med. Jour.*, Marx has several times observed symptoms precisely resembling those indicating acute inflammation of the appendages in the adult. A

child subject to vulvitis, yet otherwise in good health, is suddenly seized with fever and nausea. Pain is felt in the hypogastrium, radiating along one or both thighs. Frequent desire to micturate and pricking feelings when urine is passing, are often felt. Rectal exploration with the little finger shows characteristic deposit on each side of the uterus. Marx finds this physical symptom common, and believes that the tubes are generally involved in chronic vulvitis. In such a case the pain at puberty is very violent, and masturbation may light up old-standing inflammatory trouble. Old lesions of this kind are certainly liable to become acute in young recently-married women through excessive coitus. It is quite a mistake to accuse the husband or to suspect that the wife has recently suffered from specific discharge in many such cases.

Spontaneous Rupture of the Symphysis Pubis during Labor.—Oelschlager (*Centralbl. für Gynakol.*) has reported the case of a primipara, twenty years old, in which with the onset of labor pains two eclamptic attacks occurred in quick succession. The lower extremities were edematous, and the urine contained a small amount of albumin. The promontory of the sacrum could be touched with two fingers introduced into the vagina. The head was quite high in the pelvis and but slowly followed in the grasp of the forceps, a not excessive degree of traction being exercised. As the head began to rotate in the small pelvis a crack was distinctly heard. Examination disclosed a separation of 1.15 inches in the situation of the symphysis pubis, and the delivery of a living child weighing nine pounds was soon readily effected. On the day following the labor a leather support was applied to the hips. For two weeks the region of the symphysis was tender upon touch and painful upon movement, but a week later the woman was able to be up and about, although a slight degree of separation of the pubic bones persisted.

Children Support Large Doses of Arsenic better than adults, says *The Medical Bulletin*. Our author mentions that he has given to children eight years of age three centigrammes (4.5 grains) of arsenic acid daily without ill effect. Prescribed in this manner, arsenic is an excellent remedy in chorea, and able, in some instances, to jugulate a severe attack (*Med. and*

Surg. Rep.). Children usually take liquid better than solid preparations. Nevertheless, granules containing arsenic are readily taken, or the remedy may be made up into little *bonbons*, which children swallow or eat with pleasure. The writer, whom we follow sometimes, prescribes a granule containing one milligramme (1-65 grain) of arsenous acid, mixed with sufficient quantity of mannite and honey, from three to five such granules being administered daily in dyspnea, persistent bronchitis, asthma, etc. The arsenate of iron, also in granules of one milligramme each, may be administered in the same manner and in larger doses. As many as ten or fifteen granules of this preparation are given daily in chloroneuroses; or it may be made into pills, each containing five milligrammes. Toxic accidents of a chronic character are of very rare occurrence, and are due to neglect of the rule regarding an occasional suspension of the remedy.

SURGERY.

Closing Arterial Wounds by Suture.—Dr. Heidenhain, in the *Centralbl. für Chir.*, cites two previously recorded cases, involving in one instance the common femoral, in the other the common iliac. He also reports a case of his own, in which during the removal of some cancerous glands from under the armpit, and after necessary resection of a portion of the axillary vein, a wound about an inch and-a-half in length was accidentally made in the main artery. The bleeding was arrested by digital compression, and the edges of the arterial wound were brought together by a continuous suture of catgut. The bleeding was thus completely arrested. The lumen of the vessel was not apparently diminished. The sutures held firmly, in spite of strong arterial pulsation. The patient made a good recovery, and when last seen—seven months after the operation—was quite free from relapse. The axillary artery could be felt pulsating along the whole extent of the armpit.

DISEASES OF THE NOSE, THROAT AND EARS.

Paroxysmal Headaches Treated by Ergot.—L. Cappellari (*Sem. Med.*, 1895, XV., p. 222). In three cases of periodic headaches, the author had occasion to test the efficacy of ergot, as recommended in this morbid condition by Dr. Thomson. The patients were completely cured of cephalalgia after having taken

daily 4 gme. (1 fl. dr.) of fluid extract of ergot mixed with 12 gme. (3 fl. dr.) of elixir of cinchona for three consecutive days.—*Gaillard's Med. Jour.*

Otitis Media.—Dr. Wm. Lincoln (*Cleveland Jour. of Med.*) in an able article on the complications of purulent otitis media says: We should not “allow a purulent otitis media to progress to either a bad or a good result without attention. In other words, pus collection and discharge in and from the ear should receive not less and later, but greater and earlier attention than an abscess in other parts of the body, for the reason that it is less liable to get well without such attention, and also because the consequences of neglect are, in the general run of cases, more disastrous. In no class of cases does a patient suffer more or longer from inattention or from a mistaken conservatism of his physician.”

Sarcoma Presenting in the Nasal Fossa.—Four months after removal of what seemed to be a myxoma, the right nasal cavity was found to be occluded by a round-celled fibro-sarcoma, in a female twenty-six years old. Repeated curettage was carried out, but it became necessary to remove the body of the ethmoid bone by external operation. It is supposed that the polyp was the result of irritation due to the presence of the malignant tumor.—Haring, *British Med. Journal*, Feb. 29, 1896.—[*The Laryngoscope*].

A New Nasal Splint.—Dr. Behrens, in the *Boston Medical and Surgical Journal*, describes a simple device for fractures or operations for deflected septums. After stating the objection to rubber or ivory plugs, he describes his splints, which he makes of cork, in the following manner: A selected cork, $1\frac{1}{8}$ inches long and $\frac{3}{4}$ of an inch thick, is whittled to the shape of an almond, with the points cut off and flattened on the side that is to lie against the septum. The other side is grooved for the reception of the inferior turbinated body. A nasal trephine is now used to hollow out the splint, and after being made smooth by fine sand paper, is coated with flexible collodion, to which iodoform has been added. He claims that this splint is easily made, and cleaned without difficulty by syringing in situ, and can be worn a considerable time without discomfort.—[*The Laryngoscope*].

Electro-Cautery in Nasal Diseases.—Dr. W. A. Dunn, *Jour. of Electro-Therapeutics*, says: "The relative value of the electro-cautery with other escharotics has always been much in debate, and some operators always prefer the milder escharotics; but it is my experience that, where it is necessary for any cause to remove the tissue, the chemical escharotics are of doubtful value and much more painful in their application. It is possible to do as gentle and mild an operation with the electro-cautery as with the chemical escharotics, while I believe it to be more under the control of the operator, and less reaction follows its application."

Superfluous Tooth in the Floor of the Nostril.—R. F. Harrell and O. Joachim both report, in the *New Orleans Medical and Surgical Journal*, a case of a superfluous tooth in the floor of the nostril. In the case of the former, the patient had suffered six years from great pain, involving the whole right side of the face, and a purulent discharge from the right nostril. The removal of a superfluous tooth, which was found protruding from the floor of the right nostril, caused a subsidence of all symptoms. In the second case, the superfluous tooth was found accidentally while treating the patient for specific ulceration of the nasal septum. This tooth also proved to be a canine, but had given rise to no symptoms, except a non-purulent discharge from the right nostril.—[*The Laryngoscope*.]

Hypertrophy of the Lingual Tonsil.—Edward Tompkins gives a report of a number of cases of hypertrophy of the lingual tonsil (*Virginia Medical Monthly*). The symptoms most often observed are a dry cough, fatigue after speaking or singing, and an irritation in the throat, on account of the epiglottis being hampered in its action by the lymphatic tissue. These symptoms are most aggravated in nervous patients. Temporary relief is sometimes obtained by astringent gargles, but a total removal of the hypertrophied tissue is the only rational treatment in most cases. He finds the galvano-cautery useful, but dangerous, in the hands of inexperienced physicians. The snare can only be used when the hypertrophy is very prominent—he prefers Myler's gilotome, which will quickly remove even small and sessile growths. He has not seen any alarming hemorrhages in the cases in which he has used this instrument.—[*The Laryngoscope*.]

Aphasia in a Left-Handed Woman.—S. Monrad, of Copenhagen, describes the case of a woman, aged 63 years, in whom an apoplectic fit had produced paralysis of the left facial nerve, paresis of the left extremities, and homonymous left-sided hemianopsia. She was unable to speak and to write a number of words, and often used the wrong words for many things. Complete recovery took place in eight weeks. The history of the patient revealed the fact that she began to be left-handed when nine years of age, being obliged to wear the right arm in a bandage about ten months, and since that time she has principally used the left hand.—*Hospitals-Tidende*, No. 29, 1895.

Aneurism of Ascending Pharyngeal Artery.—Dr. Sharp, in presenting a case, said that the patient, 55 years of age, had an aneurism of the ascending pharyngeal artery. He presented her because the condition was a rare one. He had seen two cases with Dr. Griffin, one six months ago, that gave the history of specific disease. In this case there was no such history.

Dr. J. Wright said he was greatly impressed with the case, for he had seen two just like it—one in an old woman and the other in a young woman. In both of these the tumor seemed like a knuckle of the artery. He did not think this was an aneurism: it might be an abnormally large blood vessel. A case of aneurism of the tonsil had recently been reported in Vienna corresponding to the one shown here last winter by Dr. Waterman.

Dr. T. P. Berens said he could detect no thrill with his finger, but it seemed like a hard pulse. He raised the velum of the palate and the projection seemed just like a knuckle of the artery. He would like to ask if the movement were not due to the looseness of the surrounding cellular tissue.

Dr. W. K. Simpson said the area of diffusion was greater than it would be from an artery pulsation, which made it appear like an aneurism.

Dr. Lincoln said he had never seen an aneurism in this region, and was not able to satisfy his mind upon the matter.

Dr. Miles said he had a case under observation somewhat similar to this one. It is in a man about 60 years of age. The vessel was straight and hard, while this one was angular, or rather in a bow-shape and soft. He had referred the case back to the general practitioner, who said that the patient had general arterio-atheromatous degeneration.—*Am. Medico-Surg. Bull.*

F. M. R.

NEUROLOGY.

Neurasthenia.—According to the *Medical and Surgical Reporter*, Dr. John Ford Barbour says (*Am. Pract. and News*): I propose to consider the relation between the condition termed neurasthenia and diseases of the genital tract in the male and female in the four following propositions:

1. In patients of neuropathic predisposition, genital lesions may act as an exciting cause of nervous affections. The removal of the former does not necessarily cure the latter, as the removal of a spiculum of bone need not cure the epileptic fits induced by it. 2. The genital lesion may be one of a number of causes. This is most frequently the case. 3. The genital lesion and the nervous affection may be merely coincident, or both results of the same cause. 4. The genital lesion may be the result of the nervous affection. Experiments have shown that the sense of fatigue is due to poisoning of the cerebrum by the products of retrograde metamorphosis. "The blood of a tired animal is poison, and when injected into another animal causes the phenomena of fatigue." Vigoreaux, in a monograph upon this subject, claims also that all neurasthenics are arthritics, basing this upon the analysis of the urine in one hundred and fifty cases. The urine was invariably found to be highly acid. Bouchard believes that it is due to a gastro-intestinal auto-intoxication. Neurasthenia is sometimes a sequel of an acute infectious disease, as influenza or typhoid fever.

In the first place, then, neurasthenia is due to a toxemia; due not to one, but to a variety of poisons. These are sometimes bacterial in origin, as in cases following influenza or gastro-intestinal fermentations; sometimes the poison is uric acid, but most often the nervous system is poisoned by its own excreta. Experience has shown drugs to be of little value and to act at best only as palliatives. It has been a matter of great surprise to me that intelligent physicians should be willing to remain in ignorance of such powerful agents as diet, exercise, hydrotherapy, massage and electricity. Not only this, but they look with suspicion on those who employ them. All of these, with the exception of electricity, have held their own since the days of Hippocrates. It has been demonstrated by chemical and microscopical examination that massage, hydrotherapy and electricity increase the number of red blood-cells and the amount of

hæmoglobin, likewise the amount of hydrochloric acid in the gastric juice and improve the motility of the stomach. As concerns exercise, it needs to be prescribed with extreme care, since, as Beard has remarked, it may be either the worst or the best of remedies. Under the use of these remedies, combined at times with rest, I have seen patients who have been invalids for years restored to health and strength. Surely these agents deserve to be studied and used by the profession far more than they have been.

Report of the Committee on Neuronymy.—Dr. B. G. Wilder presented the report to the American Neurological Association (*Med. Rec.*).

Among the recommendations of the committee were:

1. That the adjectives dorsal and ventral be employed in place of posterior and anterior as commonly used in human anatomy, and in place of upper and lower as sometimes used in comparative anatomy.
2. That the cornua of the spinal cord and the spinal nerve roots be designated as dorsal and ventral rather than as posterior and anterior.
3. That the costiferous vertebræ be called thoracic rather than dorsal.
4. That the hippocampus minor be called calcar; the hippocampus major, hippocampus; the pons varolii, pons; the insula reillii, insula; pia mater and dura mater respectively pia and dura.
5. That, other things being equal, mononyms (single-word terms) be preferred to polyonyms (terms consisting of two or more words).

Does Antisyphilitic Treatment Prevent the Occurrence of the Diseases of the Nervous System which are Considered Syphilitic in Origin?—Dr. Joseph Collins read this paper before the American Neurological Society (*Record*), and pointed out that certain diseases of the nervous system occur sequentially to syphilis with such frequency that they are rightfully looked upon as syphilitic in their origin. These diseases are tabes, general paralysis, syphilitic spinal paralysis, and such exudative conditions as cerebral thrombosis. After briefly reporting the history and treatment of nearly one hundred cases observed in hospital, dispensary, and private practice, the writer concluded as follows:

1. Exudative and degenerative diseases due to syphilis are most liable to show themselves at the end of the third and beginning of the fourth decade of life.

2. Thorough and prolonged administration of antisymphilitic remedies during the activity of the virus does not seem to materially advance this time limit.

3. That active and prolonged antisymphilitic treatment does seem to prevent the development of such diseases as locomotor ataxia and general paresis. This is true of degenerative diseases, though treatment may, however, have some effect in preventing the exudative diseases of the nervous system, such as syphilis of the spinal cord, disease of the blood-vessels, etc.

4. Cases of tabes and general paresis in which syphilis is confessed, and in which treatment has been most desultory and incomplete, are not more liable to the early development or to the severe manifestations of either of these two diseases than those in which the treatment has been all it should be.

5. That the administration of antisymphilitic measures in the most approved way does not fulfil the requirements of cure, and that syphilis is often an incurable disease.

MEDICO-LEGAL.

Delusions and Insanity.—An important decision was recently given in the Supreme Court of Tennessee, in a case of murder, in which, a plea of insanity was set up (*Jour. Am. Med. Ass'n.*). The court held "that in criminal cases the correct issue is not that of sanity, but of responsibility. The delusions of a sane man do not make him irresponsible. The question is in such cases, is the delusion set up as a defence the delusion of an insane person? Many men of strong minds," continues the court, "have delusions. Remarkable instances are given in the works on medical jurisprudence of delusions in men of prominence in all the walks of life. Lord Kenyon had an unreasoning fear of poverty, and so had Lord Stowell, although he was a man of immense fortune, his home being absolutely destitute of the necessities and comforts of life. Lord Erskine would never sit at a table or remain in a company as one of thirteen persons. Lord Eldon, after he had made up his mind and expressed his opinion lucidly and conclusively, was at all times a prey to grave doubts of his correctness. Lord Brougham, upon more than one occa-

sion, was placed in seclusion, his mind being clearly off balance. Judge Breckenridge, of Pennsylvania, is reported to have on a hot day, while holding court at Sunbury, gradually taken off his clothes, until he sat naked on the bench. Judge Baldwin, of the United States Supreme Court, was a hypochondriac. A distinguished New England judge imagined that a dropsical affection under which he labored was a sort of pregnancy. And yet none of these men were insane, because they had reason and sanity enough to conquer and overcome these delusions. A familiar illustration is that of the Mormon elders, who claimed that they had a direct revelation from heaven permitting them to practice and teach polygamy. The world generally regards this as a rank heresy, and the claim to be the evidence of an unreasonable delusion. It has, however, been held that they cannot defend on the ground of such delusion, inasmuch as otherwise they are sane, shrewd, active, successful, and unusually practical men in their business and social relations, and they have been held responsible for such delusions. Nor can it be said that the jealous suspicions which so many men entertain without any foundation can be magnified into insane delusions, which will exempt them from punishment for crimes originating in such jealousy. In a sense, all unfounded suspicions are delusions, but they do not for that reason excuse crime."

An Itinerant Physician not Entitled to Practice.—The supreme court of Rhode Island, February 11, 1896, affirmed the decision in the case of *Evans v. State Board of Health*, that here was a party who was to be regarded as an itinerant doctor, within the meaning of the statute relating to the practice of medicine in that State (*Jour. Am. Med. Ass.*), which provides that "nothing in this chapter shall be so construed as to authorize any itinerant doctor to register or to practice medicine in any part of this State." He was a domiciled resident of Boston, Mass., and a practicing physician, making a specialty of the treatment of catarrh. His main or regular office was in Boston, and for years past, except when absent from the country or prevented by illness, he had visited Providence in the practice of his specialty on stated days each month. He had no office in Providence except the rooms he had taken in the hotels at which he stopped. He notified his patients of his visits by advertisements in a Providence newspaper, and had met them in his

rooms at the hotels at the times mentioned in the advertisements. He had also during this ten years, for greater or less periods, been in the habit of visiting, in the practice of his specialty, Worcester, Springfield, New Bedford and Lowell, Mass., in the same manner as he had visited Providence. On these facts the court holds that the decision of the State Board of Health, as above, was correct.

PROCTOLOGY.

Non-Malignant Strictures of the Rectum.—In the *Medical Standard*, Dr. J. B. Bacon has written a most excellent article under the above title (*Langsdale's Lancet*). After detailing the failures that so frequently occur after the treatment of non-malignant strictures by electrolysis, dilation, and internal and external proctotomy, he proceeds to describe a method which he claims to be original, that will permanently relieve strictures situated above the levator ani muscles, and strictures in the female which extend down almost to the internal sphincter muscle. As an illustration, he reports a case operated on in June, 1895: After preparation the patient was anesthetized and placed in the Trendelenburg position, when an incision was made in the median line, extending from the umbilicus to the pubes, thus enabling the operator to look and judge of the length of the stricture, which was about four inches. The sigmoid was drawn up to the abdominal cavity, and half a small-sized Murphy button was securely sutured therein. An assistant now inserted the other half of the button through the anus and up the rectum to the lower limit of the stricture, which was placed against the wall of the rectum in such a manner that the operator could see where to make the opening. Next the apposing surfaces were scarified, the sigmoid, containing the half button, was then bent down over the stricture until it united with the half button below it; and thus was formed a lateral anastomosis of the sigmoid and rectum below the stricture. During this process a slight amount of pus escaped into the peritoneal cavity, thus making a gauze drain necessary. The wound was then closed in the usual manner. The button came away on the ninth day, when an ox-gall enema was given and a good liquid stool secured. A clamp was placed, without an anesthetic, on the forty-seventh day, which came away on the fiftieth. The patient had a good appetite, rapidly gained in strength, and was able to be about after the sixtieth day.

Five months after the operation a greater part of the fibrous tissue about the stricture had been absorbed, and there was a large, free opening between the rectum and the sigmoid. The ulceration was also much improved. The object in folding the sigmoid upon the structure was to have a normal piece of gut united to the end of the stricture band that had been severed by the clamp, and thus to prevent their reunion and the reformation of the strictures. One of the features pertaining to this operation is that the sphincters are left intact. Dr. Bacon says: "I have now operated upon twelve cases, the first one fourteen months ago, and the patient has gained thirty pounds in weight and there was a large, free opening where a tight stricture was cured. Even this case is too recent to be assured that recovery will be permanent. The other eleven are doing well, and in no case has there been any serious complication or sepsis."

In speaking of operation of stricture low down, he says it "is simply and quickly performed. It consists in making a mucous fistula around the stricture from a point below its border, posteriorly in the rectum, as inner opening above the upper border of the stricture. A heavy silk ligature is passed by means of a blunt-pointed needle, similar to an aneurism needle, and left in place for three months, when it is removed and a probe-pointed grooved director passed through the fistula tract and the stricture severed with a Paquelin cautery down to the directory."

Abdomino-Perineal Method of Extirpating a Rectal Cancer.—Some members of the Paris Société de Chirurgie have been experimenting (*Bulletin Médical*) with a new method of removing cancer of the rectum, which has as yet only been performed on one living subject, and who succumbed a few days after to accidental dyspnea. The large intestine is drawn out through an opening in the abdomen and a couple of ligatures made, about four centimeters apart, above the extreme limit of the neoplasm, and a section made between. The ends are ligated again and covered with iodoform gauze. An incision is then made in the recto-vesical perineal pocket, and the rectum below the section detached as much as possible. A circular incision is then made at the anus, after which the entire rectum is drawn up and out through the perineal incision, which is then entirely closed. An artificial anus is then made from the end of the intestine above. This method is adapted (*Jour. Am. Med.*

Ass.) to those cancers which extend from the anus twelve to fifteen centimeters upward, where the rectum can still be made to slide on the neighboring organs. If the growth prevents this slipping of the rectum it is beyond any operation.

Operation for Cancer of the Rectum.—Asst. Surg. C. H. Gardner reports the following case in the last report of the Surgeon-General at the U. S. Marine Hospital Service (for 1895):

F. M.; aged 52 years; nativity, Mexico; admitted to the United States Marine Hospital, San Francisco, Cal., September 17, 1894.

Patient complained of bloody discharges from the bowels, dull aching pain in rectum, which was aggravated by the act of defecation. He was impelled to stool every two hours and defecations were quite scanty. Upon digital investigation a nodular tumor was found occupying a portion of the posterior wall of the rectum, from just within the sphincter to 5 cm. above. The discharge referred to was not blood, but the coffee-colored fluid of cancer; and diagnosis was made accordingly. Matters having been explained to the patient, operation was decided upon. For a week preceding the operation he was restricted to milk diet; daily enemata of warm water were given and an occasional laxative.

Operation performed October 14, 1894. The disease had made considerable progress since admission to the hospital, and a tumor was found, about 5 cm. long by 2.5 cm. broad, and involving the entire circumference of the rectum. The diseased portion was excised—cut extending well up into healthy tissue. The divided end of the rectum was not brought down and sutured to the skin, as it was thought that the tension would be too great. Hemorrhage was moderate. A hollow iodoform tampon was inserted into rectum, and the wound packed. About a week afterwards sutures were put into perineal part of wound to reduce its size. Granulation went on and wound rapidly healed.

The subsequent history of the case is simply that of treatment of the resulting cicatricial stricture of the anus. There has been no return of the disease up to the time of the last examination, six months after operation. Patient has no pain, passes no coffee-colored discharges, and is in good general health. He wears a vulcanite plug with little or no inconvenience, and it serves the double purpose of preventing closing of the anus and promoting cleanliness.

Book Reviews.

In Sickness and in Health. A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics and Nursing. By a Number of Contributors. Edited by J. WEST ROOSEVELT, M.D. Imperial 8vo., pp. 991. [New York: D. Appleton & Co. 1896.]

This is not a work constructed on the plan of every man his own doctor. It is a book which can only be understood by those having a certain amount of education and a certain degree of culture, and the class who will obtain the book and study its contents will never attempt to practice medicine upon the information so obtained. The contributors are all well-known instructors, who are capable and know just exactly what to say at the right time.

Beginning with anatomy, physiology is next considered, and the outlines of psychology are given in a clear and forceful manner. Hygiene and physical training are elaborated upon, and this portion alone should recommend the work to every physician and call for his unqualified commendation to advise every home to possess a copy and study these subjects thoroughly. For there can be no manner of doubt that a proper regard for hygiene is the greatest aid the medical adviser of a family can get.

Diseases are taken up seriatim, as are also surgical troubles and emergencies. It is in the latter that we find much sensible and useful advice. What to do until the arrival of the doctor and how to do it are given in a most clear and comprehensible way. This is a feature which also deserves much commendation. The final chapter on nursing is the product of the pen of a skilled and experienced professional nurse, and will appeal to every woman as well as receive the highest praise of every medical man who knows the value of a trained nurse. This portion, in conjunction with the parts devoted to dietetics, add still more to the value of the book before us.

There is but one fault to find with the work, if fault it may be called; it is the fact that it may induce some who are thoughtless and unskilled to attempt the difficult task of making a diagnosis and the more dangerous matter of essaying the treatment of some apparently simple case, which is in reality grave, complicated and dangerous. Yet the contributors have not failed to point out the dangers which lurk in the possession of too little knowledge, more especially in medicine.

The book is profusely illustrated and many good plates are given. We are rather surprised to find no plate devoted to small-pox, when measles and scarlatina are represented. R  theln also deserves a colored picture, as it would greatly help in dissipating a groundless and very often insane fear, which is entirely unfounded.

The mechanical execution of the book is of the best quality, and the material used is of the best. The index is large and copious; and we do not hesitate to say that the publishers have done the profession as well as the public a real service in issuing a work written by able and conscientious authors, and one for which a demand really exists and will increase. It is a pioneer book, which will do more to drive out of the market many trashy books in the guise of medical advisers which now flood it, than all the talking and lecturing that physicians could indulge in to their patients. The book is a good one and deserves the hearty support of the profession.

Affections Chirurgicales du Tronc (Rachis, Thorax, Abdomen, Bassin.) Par le Dr. POLAILLON. 8vo., pp. 550. [Paris: Octave Doin, 8 Place de l'Odéon. 1896. Prix, 6 francs.

Surgical Affections of the Trunk (Spinal Column, Thorax, Abdomen, Pelvis). By Dr. Polaillon. 8vo., pp. 550. [Paris: Octave Doin. 1896. Price, 6 francs (\$1.20).

We have had occasion to review the two first volumes of hospital surgery, dealing with the surgical diseases of the upper and lower extremities, by the same author; and we find that the present and third one is written with the same care and attention to details as its predecessors. This volume does not include the head and neck, and another volume is to follow devoted to the ano-rectal region and genital and genito-urinary affections. The head and neck are to have a separate volume devoted to them, as becomes such important parts.

The portion we are now considering contains a consideration of the cases treated in hospital during the last seventeen years, in which the trunk was implicated. The first part deals with traumatic lesions, and the second with organic affections. In this latter we find benign and malignant tumors, acquired malformations, such as obstruction of the biliary ducts, and of the bowels, hernias, spina bifida, etc. The amount of labor involved in making-up this work may be estimated by the fact that 244 cases are detailed.

We cannot go into a complete analysis of the work done, as it would demand more space than we have at our command at present. The author has the happy faculty of making every case an interesting one, and his observations are replete with food, advice and sound deductions. The illustrations, whilst not very numerous, are all good and instructive; and his general plan has been a much better one than that suggested to him of issuing clinical lectures. As he very pertinently observes, a lecture presents but one or two striking examples illustrative of surgical pathology. A statistical work containing all the cases seen in hospital work during a certain number of years is more instructive as well as more useful.

We would very much like to see an English translation of this truly masterful work in its entirety. Even as it is, in French, no hospital having any pretensions should be without it on its book-shelves. There are so few surgeons or physicians, trying to be such, who can read French, that a most valuable guide and interesting account of surgical cases is lost to them. To those who can read French, we would advise that they obtain Polakillon's complete work. We shall certainly look forward to the appearance of the next volume with impatience, as it is a rare treat to read such systematic and well-written records of a busy surgeon's hospital work.

Transactions of the Southern Surgical and Gynecological Association. Eighth Session, held at Washington, D. C., Nov. 12-14, 1895. Vol. VIII. 8vo., pp. 303. [Published by the Association. 1896.]

Another annual session of the Southern Surgical and Gynecological Association has demonstrated what we said a number of years ago—that it had the vigor and stamina which would make it endure and guarantee for it a long, useful, and honorable career. We are once more called to the pleasant task of reviewing the last volume of transactions issued by this Association. As in former years, it is replete with good papers, written by honest workers who are capable writers and each one of whom is an honor to his community. The sum total of the papers numbers twenty-four, and there is not a single one which can be called anything else but interesting.

An address which we read with particular interest and pleasure is that entitled "Dr. J. Marion Sims and His Work," by Dr. John A. Wyeth, of New York. Whilst the speaker's acquaintance with Dr. Sims was confined to the last seven years of his life, he confesses that he owes more to Sims than to all others. To read the tribute paid to the memory of the idol of the American medical profession by the distinguished New York surgeon is something inspiring and a spur to do more and better work. It is a demonstration of the clearest kind that a prophet is appreciated in his own country, and is *not* without honor among those who are capable of appreciating worth.

The volume before us is of the usual high-class form in which its predecessors have appeared. Beveled edges, gilt top, stamped covers and good paper make it a luxurious book, worthy of the place of honor on any physician's book-shelves. We see throughout the marks and evidence of the faithful and indefatigable secretary of the Association, Dr. W. E. B. Davis, of Birmingham, Ala. We could hardly conceive of any one filling his place so completely and efficiently as he has done. He is an indefatigable worker and the transactions are a veritable work of love with him, and too much praise cannot be accorded to him

for what he has done in the past and is prepared to do in the future.

Transactions of the Medical Society of New York, for the year 1896. 8vo., pp. 544. [Published by the Society. 1896.]

This is one of the best volumes issued by the Society for several years. It contains forty-two papers by the most prominent physicians and surgeons of New York. The plan of having several symposiums on different subjects was successfully carried out, and is one worthy of emulation, as it is prolific of good work and permits a subject to be thoroughly discussed in prepared papers. This is conducive to thoroughness and value such as no extemporaneous discussion could elicit. Thus we are given a discussion on the Present Status of Surgery of the Brain, comprising no less than five papers. Abdominal Surgery also includes five papers. The discussion on Syphilis in Infants and Young Children includes four papers, which take up the subject from the diagnosis to the nervous manifestations of the disease.

One paper to which we desire to call particular attention, as it is a most valuable contribution to physiology and shows quite an amount of research, is that on the Equilibrium Function of the Ear, by Dr. Gaylord P. Clarke, of Syracuse, N. Y. Hysterical Tetany or Tetanoid Hysteria, by Dr. Grace Peckham Murray, of New York City, is also a very carefully prepared contribution to a neurological subject, not so well understood by the generality of the profession as it should be.

We could go on enumerating valuable papers did space permit; but we would perforce have to notice every one read at this meeting. As we stated higher up, this is one of the best volumes issued by the Society for a number of years. In mechanical execution the volume is irreproachable. Carefully edited, printed in Dorman's best style, elegantly bound with gilt top, it is a credit to the Society which issues it.

The Multum in Parvo Reference and Dose Book. By C. Henri Leonard, A.M., M.D. 24mo., pp. 143. [Detroit: The Illustrated Medical Journal Co. 1896.. Price, 75 cents.]

This is a recent edition of the Dose Book, of which the title-page informs us some forty thousand copies have been issued. The present edition is printed on very thin paper, and is bound in red leather, round corners, so as to make it specially light and handy for the pocket; the weight is not two-and-a-half ounces. Besides the doses of some 3,500 preparations being given, it has numerous tables, such as the solubility of chemicals, pronunciation of medical proper names, poisons and their antidotes, incompatibles, tests for urinary deposits, abbreviations, tables of fees, etc.. It will be found a handy pocket-companion.

Keil's Medical, Pharmaceutical and Dental Register, Directory and Intelligencer. Fourth Edition. 8vo., pp. 607. Geo. Keil, Editor. [Philadelphia: Burk & McFetridge Co. 1896.

This is a most complete and valuable directory of the States of Pennsylvania, New York, New Jersey, Maryland, Delaware, and the District of Columbia, containing lists of physicians, druggists and dentists in these States, arranged alphabetically, and in large cities numerically by streets as well. There are, in addition, special departments for medical colleges, hospitals, dispensaries, societies, laws, etc.; the college of graduation, the year, and office hours. We can heartily commend this directory, as it is correct, and the editors and publishers have spared no pains and expenses to make it the best of its kind.

Literary Notes.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

Keil's Medical, Pharmaceutical and Dental Register, Directory and Intelligencer. Fourth Edition. 8vo., pp. 607. Geo. Keil, Editor. [Philadelphia: Burk & McFetridge Co. 1896.

The Multum in Parvo Reference and Dose Book. By C. Henri Leonard, A.M., M.D. 24mo., pp. 143. [Detroit: The Illustrated Medical Journal Co. 1896. Price, 75 cents.

In Sickness and in Health. A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics and Nursing. By a Number of Contributors, and Edited by J. West Roosevelt, M.D. Imperial 8vo., pp. 991. [New York: D. Appleton & Co. 1896.

Affections Chirurgicales du Tronc (Rachis, Thorax, Abdomen, Bassin). Statistique et Observations par le Dr. Polaillon. 8vo., pp. 550. [Paris: Octave Doin, 8 Place de l' Odéon. 1896. Prix, 6 francs.

Transactions of the Southern Surgical and Gynecological Association. Eighth Session, held at Washington, D. C., Nov. 12-14, 1895. Vol. III. 8vo., pp. 303. [Published by the Association. 1896.

Transactions of the Medical Society of the State of New York for the Year 1896. 8vo., pp. 544. [Published by the Society. 1896.

On Germinal Selection is No. 9 of the Religion of Science Library, published by the *Open Court* Publishing Co., of Chicago. This number is written by August Wassmann, of Freiburg, who has gained an enviable reputation as a biologist.

The basal idea of the essay is to show that in the process of selection adaptation is not the result of accidental variation, but is rather based on germinal selection. Of course, it is nothing but a theory, and yet it is so logically followed out, and it is a most valuable contribution to the history of evolution through natural selection. It would be well for any progressive physician to read this little monograph, which contains the basal idea of many important truths, arranged in such manner as to prove of the highest scientific value. The price of the pamphlet, which contains 70 pages, is 25 cents.

Revised Nomenclature of Diseases.—The committee appointed in 1892 by the Royal College of Physicians, of London, to revise the then authorized "Nomenclature of Diseases" has just completed and issued a volume of more than five hundred pages. The original edition was published in 1869, its preparation having occupied nearly twelve years. The present volume is so arranged that it will be a valuable guide to uniformity of nomenclature among nearly all of the more civilized nations, but is especially useful to English-speaking countries. Each disease is given first in English, then follows the corresponding Latin, French and German names. Many important changes have been made in classification. This is particularly evident in diseases of the nervous, digestive, respiratory and integumentary systems. The section on surgical operations has also been completely revised.

The Laryngoscope, a monthly journal devoted to diseases of the nose, throat and ear, has just made its appearance, the initial number bearing the date of July, 1896. It is a very neatly gotten up publication of 64 large octavo pages. The editors and proprietors are Drs. Frank M. Rumbold and M. A. Goldstein, of St. Louis, assisted by well-known American and foreign medical men. In this first number a goodly number of able articles by well-known, capable men appear, and from all indications presented the *Laryngoscope* has come to stay. J. Mount Bleyer, of New York, on the Photo-Fluoroscope; Seth Scott Bishop, of Chicago, on Hay Fever and its Successful Treatment; J. Dundas Grant, of London, on the Clinical Investigation of Ear Diseases; and a number of well-known authors, are among the contributors to No. 1. Editorials and selections complete this copy. The journal is not intended for specialists alone, but for the general practitioner as well; and if the standard which has been adopted is kept up it will prove an eminent success. The subscription price being but \$2.00 per annum, it is within the reach of all. The liberality of illustration is a feature which will recommend the *Laryngoscope* to its readers, both actual and prospective. We can heartily commend it to our readers, who may send their subscriptions to P. O. box 787.

Melange.

The American Dermatological Association will hold its annual meeting at Hot Springs of Virginia, September 8th, 9th and 10th. Many interesting papers have been promised, and the Committee of Arrangements states that it will spare no efforts to make the meeting a grand success. The secretary of the association is Dr. Charles W. Allen, 126 East Sixtieth Street, New York.

American Microscopical Society.—The nineteenth annual meeting of the American Microscopical Society will be held at Pittsburg, Pa., August 18th, and continue four days. A hearty welcome is extended to all interested in the microscopical sciences. Applications for membership and titles of papers to be read at the meeting should be addressed to Clifford Mercer, M.D., president, Syracuse, N. Y., or to William C. Krauss, M.D., secretary, 382 Virginia Street, Buffalo, N. Y.

Insomnia in Acute Diseases.—Insomnia occurring in the course of acute diseases may be due to a variety of causes, the most prominent of which are the effects of high temperature, the presence of bodily pains, and the general excitability of the nervous system. If due to the febrile process the sleeplessness will be relieved by use of appropriate antipyretic measures; if resulting from severe pains opium and its alkaloids may be required. There is a large class of cases, however, in which the patient is sleepless chiefly from excitement of the nervous system, and here a pure hypnotic is eminently indicated. Ten or fifteen years ago chloral was considered the only pure hypnotic; but as Dr. E. C. Bailey (*Daily Lancet*, April 24, 1896) points out, its introduction into general use has probably been productive of quite as much evil as good. On the other hand, trional embodies all the good properties of chloral and is free from its disadvantages. It affords a quiet, deep sleep, closely resembling the normal, from which the patient awakes refreshed and strengthened, enabling him to wage a more successful battle against the inroads of the disease. No depressing effect upon the heart, respiration and nervous system need be feared, so that it can be safely administered even to greatly debilitated persons. It acts promptly, is agreeable to take, and leaves behind no unpleasant after-effects. Dr. Bailey has found out that the insomnia of acute disease yields to its soothing influence. In many instances a dose of five grains has been sufficient to produce a long period of sleep, in nowise differing, so far as appearance and result are concerned, from that of nature. In his hands trional has proved to be to insomnia what morphia is to pain and quinine to malaria.

Miscellaneous Notes.

The Use of Protonuclein.—Goshen, Ind., March 7th, 1896.
To the Editor:—I am much obliged to you for the space you were kind enough to give my article on Protonuclein and a case treated with that medicine alone. I am still prescribing Protonuclein in my daily practice with increased confidence. I am free to state that I have had more satisfactory results from this medicine than from any one remedy I have ever prescribed, except perhaps quinine in malaria. Having had quite a long experience in the practice of medicine, I trust that I am not entirely deceived.

I this locality the past season, almost every case of malignant diphtheria has extended to the larynx and trachea, and those cases have been invariably fatal—such, no doubt, would have been the result in this case, only for the prompt arrest. I never saw a more violent attack. There were three persons exposed—mother, husband and little son. As preventive they were all given the same internal treatment the main patient was taking. The husband had a very mild diphtheria, which required a couple of local treatments. The other two escaped entirely.

Respectfully,

A. C. JACKSON.

—*Jour. Am. Med. Ass.*

Bromidia.—In our experience we have learned to rely upon the bromides, chloral, cannabis indica and hyoscyamus as sedatives, which, if judiciously used, bring order out of chaos. The bromides lower the sensibility of the brain, and thus promote sleep. The single salts can be used; but in the writer's experience, where a sedative is indicated in sleeplessness, it is better to combine them, and when there is any excitement add chloral. Cannabis indica is a sedative which is but little used by the general practitioner, and for the reason that it is misunderstood, misrepresented, and as a result never used as it should be. Clouston, Mathison and Echeverria have taught us their value. Hyoscyamus is another sedative, the value of which is not appreciated, a drug which is endorsed by Budde, Brush, Krafft-Ebing as a hypnotic. Now these valuable sedatives, when combined, give us a thoroughly reliable and satisfactory agent with which to treat sleeplessness; and in the writer's experience no more elegant or reliable preparation is before the profession than that of Bromidia, in which is combined in proper proportion the bromide of potassium, chloral hydrate, hyoscyamus and cannabis indica. We feel that the profession can always rely upon this combination, and find it especially useful in the treatment of sleeplessness.—*The Medical Fortnightly*.

Summer Disturbances of Children.—In fermentative disorders of the alimentary canal in the young, middle-aged or old, Listerine has given most satisfactory results. In the summer diarrhoea of children, Dr. I. N. Love, of St. Louis, speaks very highly of it, given in combination with glycerine and simple syrup. A formula that I have time and again used—in fact, it has almost become routine with me of late years—is as follows:

R	Bismuth Sub. Nit.....	Half a drachm.
	Tr. Opil.....	Twenty drops.
	Syr. Ipecac	} aa Two drachms.
	Syr. Rhei Arom.	
	Listerine.....	Half an ounce.
	Mist. Creta.....	One ounce.

M. Sig. Teaspoonful as often as necessary, but not more frequently than every three or four hours. This is for children about ten or twelve months old.—*Deering J. Roberts, M.D., in Southern Practitioner.*

Vin Mariani.—During the past thirty-five years Vin Mariani has gained more ardent admirers among the medical profession throughout the world than any other preparation, and justly so, as there has never been a disappointment from its use. This is specially noteworthy on account of the attacks made from time to time against coca (generally from interested parties); and on investigation it is shown that the many so-called coca wines are nothing more than shameful mixtures of cheapest, inferior wines, and variable solutions of cocaine unscrupulously sold as coca wine, simply for mercenary purposes.

It is in this manner that really useful drugs are brought into discredit.

M. Mariani has gathered the written opinion, clinical notes, etc., of many thousand physicians from all parts of the world, showing the universal high opinion of practitioners who have subjected Vin Mariani to thorough test.

Extract Pinus Canadensis in Gonorrhea.—Dr. C. Morroa, 1045 Mission St., San Francisco, Cal., says: "I have used S. H. Kennedy's Extract of Pinus Canadensis (White) in one case of gonorrhea. A lady had a discharge for months and had been treated with iodine crystals in water as an injection, with no effect except to soil her clothing. I gave her a bottle of S. H. Kennedy's White Pinus Canadensis, giving directions for use as injection internally; gave fluid ext. prunus virg. as a tonic. She lives in Alameda, and only yesterday she sent me some other sufferers, telling them I cured her. I will say in conclusion that your preparations are good; I have used them in some minor cases, that I did not think worth while noting at the time, always with success."

Malto-Pepsine.—E. C. White, M.D., Jacksonville, Fla., writes: "My experience with Malto-pepsine (Tilden's) has been so decidedly satisfactory and gratifying that I prescribe it with a positive assurance that benefit will follow its use. In the case of an infant affected with a weak catarrhal stomach, with faulty digestion, and a tendency to excessive purging and vomiting, its action was very prompt in correcting the difficulty."

Glycozone in Chronic Gastritis.—Dr. Geo. A. Curriedeur reports a case and says: "The conclusion came to in this case is that the headache is sympathetic, that the stomach becomes acutely inflamed by its inability to naturally and properly perform its functions, and responds to the call of nature to unload itself, and thus secure for a time rest; that the use of Glycozone has corrected the existing gastritis, and by so doing has removed the primary cause of these many years of suffering."—*Med. Summary.*

Effervescing Lithia Water (Extemporaneous).—Combine the convenience of an article with a highly meritorious character, and we have the most forcible recommendation. Where, instead of bulky bottles of Lithia Water, there can be substituted a portable, compact tablet—a concentration of material—accurate, uniform and unchanging—each of which tablets represents the active constituents of a large volume of ordinary spring water, and there can be an instantaneous conversion of fresh water into a cooling effervescent, grateful and medicinal drink, by merely dropping a tablet into the glass. We certainly have that which appeals to reason and commends itself to sense. Physicians greatly appreciate this, and show their favor by adopting in the demands of daily practice the use of these Effervescent Lithia Tablets, giving an expressed preference in prescribing to the products of the Messrs. John Wyeth & Brother, chemists, of Philadelphia, whose art and skill in the science of preparing medicine has gained for them so highly complimentary a reputation.

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 669.

VOLUME LXXI.—SEPTEMBER, 1896.—No. 3.

Original Communications.

OCCASIONAL PERISCOPE OF ANTENATAL PATHOLOGY. By J. W. BALLANTYNE, M.D., Edinburgh.

I. *Etiology of Sudden Death in the New-born Infant.*—It can hardly be doubted that many cases of sudden death occurring soon after birth are due to antenatal causes, which are little, if at all, understood. Some years ago the periscopist reported a case (*Arch. Pediat.*, April, 1892) in which rupture of the spleen, apparently occurring spontaneously, led to the demise of an otherwise healthy-looking child of a few days old. Now Drs. Muggia and Condio put on record (*La Pediatria*, Naples, IV, p. 118, April, 1896) an equally interesting observation, in which, however, the hemorrhage was intracranial. A well-formed male infant was born slightly prematurely, after a labor whose second stage lasted only one hour and a half and was perfectly natural. After three hours the child died suddenly, without any apparent cause and without having shown any signs of convulsions, of vomiting, or of hemorrhagic stools. There was simply a sudden development of dyspnea and asphyxia. It should have been stated that at birth a sanguineous swelling was evident over the

occipital margin and the right parietal region. At the necropsy there was found a cephalhematoma, affecting the whole occipital area and lying beneath the pericranium. When the cranium was opened, it was seen that a marked extrameningeal hemorrhage occupied the occipital region, and that the longitudinal sinus contained a blood clot. The brain was markedly congested. The only other anomaly found was the presence in the thorax of a considerably hypertrophied thymus gland, in size and weight double what is usually met with at birth. These facts—congestion of the viscera, hypertrophy of the thymus, occipital cephalhematoma, and meningeal hemorrhage—were regarded by the authors as the important factors in the case. They were of the opinion that there was no evidence to show that the meningeal hemorrhage was due to labor, and thought that the determining cause was the hyperplasia of the thymus gland, which had acted during both intra- and extra-uterine life, by obstructing the cranial circulation. The conclusion to be drawn is, that sudden death in the new-born is sometimes caused by extensive extrameningeal hemorrhage, produced even in normal labor, and favored perhaps by hypertrophy of the thymus gland. It should be noted that there was no history of syphilis, of alcoholism, or of any hereditary malady in the parents.

II. *Fetal Death from Compression of the Cord.*—Many of the causes of intra-uterine death are still but imperfectly known, as is shown by a case which was recently put on record by Davezac (*Journal de Médecine de Bordeaux*, No. 21, May 24, 1896). At the time of confinement the fetal heart had ceased to beat for more than eighteen hours. After the birth of the head it was found difficult to extract the shoulders, and it was then seen that the fetus was hindered by the cord, which formed a loop squeezed in the bend of the tightly flexed elbow. The epidermis was white and had begun to desquamate, and the cord was green in its whole extent. The liquor amnii contained some meconium. It appeared as if the death had been due to pressure on the cord by the flexed forearm. In the course of some remarks on the case, Dr. Lugeol referred to the marked signs of maceration in an infant which had only been dead for a few hours; but it must be borne in mind that desquamation of the cuticle may be met with even in a fetus born alive, a condition to which the periscopist has given the name "fetal keratolysis" (v. *Diseases of the Fetus*, ii, p. 188).

III. *Consanguineous Marriages, and their Alleged Effects upon the Offspring.*—In a comprehensive manner Dr. Porfirio Parra (*Gaceta médica de Mexico*, XXXIII, No. 3, 1896) discusses the disputed question, whether a consanguineous marriage can of itself produce degenerate descendants of little vitality, and predisposed to many and various maladies. He quotes with approbation the saying of Joulin, that the traditional repetition of an error can never convert it into truth; and, as may therefore be expected, takes ground against the popular belief in the danger of unions between blood-relations. Consanguinity is of two kinds—direct, that between a parent and his descendants; and indirect or collateral, as between brothers and sisters, first cousins, and uncles and nieces. In early times, as in ancient Egypt, marriages of brothers and sisters were common, whilst among the Persians and Medes even those in the direct line of consanguinity were occasionally united, *e. g.*, “*mater eademque confux.*” In Greece the same custom held, as indeed we may read in the history of Œdipus. Roman law, however, prohibited consanguineous marriages, probably largely from political motives; and in later times the prohibition was continued for moral reasons, and in the public interest. During all this time there was no indication of any belief in the teratological or pathological effect of such marriages; it was not on this account that they were forbidden by the church and the law; else why prohibit the marriage of a man with his deceased wife’s sister, or (as in the old French legislature) of an obstetrician with his patient or her child, whom he has brought into the world? We find, however, José de Maistre stating that the union of brothers and sisters would produce monstrosities, and Buffon sounded a loud note of alarm regarding the dangerous effects of consanguineous marriages; and since that great naturalist’s time, many have written on the subject, but without any degree of agreement. Dr. Parra criticises the evidence brought forward by Rilliet, Devay, Mitchell and others, and comes to the conclusion that consanguinity can only accumulate in the offspring the hereditary tendencies, good or bad, of the progenitors; by itself it has neither a good nor a bad influence; it simply increases the hereditary tendencies, of whatsoever kind they may be. If the progenitors are healthy, so will be their offspring; if, on the other hand, they are feeble, diseased, or deformed, the fruit of the union will be more so.

IV. *Fetal Bone Disease*. — Dr. Oreste Margarucci (*Il Policlino*, April 1, 1896) describes, with full microscopical details, three cases of anomalous development of the skeleton during fetal life. As is well known, the bone diseases of the fetus form a little-understood part of antenatal pathology, and many of them have been freely grouped together under the name of *fetal rickets*, although it is still a matter of doubt whether the name can be correctly given to them. In the specimens examined the skeletons showed, to the naked eye, signs analogous to those of ordinary rickets, viz., softness of the cranial bones, enlargement of the epiphysial ends of the long bones, twisting and curving of the shafts, nodular swellings on the ribs, and fragility and fractures of the long bones; but the histological characters were not constant; and while some of those peculiar to rachitis were present, others were absent, and yet others had a different signification. Hence it may be concluded that the conditions found were not constantly and entirely identical with those of rickets as it develops in extra-uterine life.

V. *A Racial Birth-Mark*. — In Dr. Ashmead's "Collection of Some Foreign Opinions on Pathological Matters Peculiar to Japan" (*Sei-i-Kwai Medical Journal*, XIV., No. 1, 1896) it is stated that all newly-born Japanese infants have a dark-blue spot in the region of the sacrum or on the buttocks. It first appears at the fifth month of fetal existence, and vanishes during the first two years of life. One peculiarity about it is that the pigment is situated in the corium, while in other pigmentations it is preponderatingly placed in the epidermis. The significance of this racial pigmentary nevus it is hard to guess at. It is noteworthy that in the Japanese the hair on the body is scanty, and that of the head and beard is always very dark in color. It would be interesting to know whether any anatomical defect (*spina bifida occulta*) is common in the lumbar and sacral region of the spine.

VI. *Hydramnios and Fetal Hydrocephalus*. — One of the many unsolved problems of antenatal pathology is the nature of the connection which exists between excess of the liquor amnii and various fetal morbid states. In the first number of a new Central American medical journal (*Gaceta médica de Costa Rica*, I, No. 1, May, 1896) Dr. José M. S. Alfaro puts on record an instance of this association of pathological conditions. The case

was one of greatly delayed labor from hydramnios and fetal hydrocephalus, in which the infant's head had to be broken up and the delivery effected by version. Another interesting fact, from the point of view of fetal pathology, was the history of a previous twin pregnancy in the same patient, and of one in the case of her mother. The fetal head when distended with fluid had about the size of the adult head. The other parts of the fetus were normally formed, save that the spinal column at the point of union of the cervical and dorsal regions showed a distinct projection, caused by the bodies of three vertebræ, as well as a spina bifida. Possibly the excess of the liquor amnii was due to the overflow of the copious cerebro-spinal fluid through the defective part of the spinal column; at any rate, the combination of hydramnios, hydrocephalus and a history of twin-bearing is noteworthy. The infant, of course, was born dead, and the case was yet another example of what the periscopist has elsewhere (*Diseases of the Fœtus*, I., p. 97, 1802) called the *potential mortality of the fetus*. So long as the fetus could remain in utero it continued to live, but as soon as its birth commenced to take place its death for that very reason ensued.

VII. *Grape Sugar in the Liquor Amnii*.—In the early part of 1895, Ludwig reported a case in which grape-sugar was found in the liquor amnii of a diabetic subject. The liquor amnii was in excess, and it was suggested that there might have been fetal diabetes, but as the fetus was dead-born this could not be decided. Dr. Emil Rossa (*Centralblatt für Gynäkologie*, No. 25, 1896) now records a somewhat similar case, in which, however, the infant was born alive. The patient, a primipara, 28 years old, with marked rachitic signs, and a conjugata vera of 7 cms., came into hospital between the sixth and seventh months of her pregnancy. The uterus was over-distended and fluctuating; the fetus was small, and showed active fetal movements, although no heart-sounds were audible. Hydramnios, with a living fetus, was the diagnosis. The patient's urine was clear, light-yellow, acid, had a specific gravity of 1005, and gave a distinct sugar reaction. The sugar was found to be grape-sugar (dextrose), and was present to the amount of 0.46 per cent. The daily quantity of urine varied from 1200 to 1500 cubic cms. The patient refused to allow the Cæsarian section at the full term, and therefore premature labor was induced presumably about the end

of the seventh month. At least three litres of liquor amnii escaped, and this showed the presence of grape-sugar to the extent of 0.345 per cent. A living male child, weighing 1290 grammes, was born. The infant died thirty-two hours later, but in the meantime some of the urine had been drawn off by a catheter, and *showed no sugar reaction*. On the sixth day of the puerperium the sugar had disappeared from the mother's urine. In this case it must be concluded that the sugar in the liquor amnii did not come from the fetal urine, but from the maternal blood. It would be well in all cases of glycosuria in pregnancy to test the liquor amnii for sugar.

VIII. *Facial Paresis in the New-born After a Spontaneous Labor*.—Facial paralysis or paresis after a non-instrumental labor is very rare; but Ludwig Knapp (*Centralblatt für Gynäkologie*, No. 27, 1896) has recently reported a case. There was a deep impression (promontory mark) on the infant's left frontal bone and neighborhood, along with much surrounding edema; and Knapp regarded the paresis, which passed off in a few days, as a peripheral one, due to pressure on the nerve fibres of the facial by the edema of the skin.

Fees for Post-mortem Examinations in South Carolina.

—By law passed in 1896, physicians in South Carolina shall be paid the following fees for post-mortem examinations and testifying at coroner's inquests: For a post-mortem examination and testifying when no dissection is required, \$5; when dissection is necessary and the body not interred, if requested by the coroner's jury, \$10; for same after interment for three days or more, \$15; for chemic analysis, a sum not exceeding \$40 and expenses for such analysis; and when chemic analysis has been made the chemist who makes it must furnish to the county board of commissioners with his account a full statement of the analysis. The clerk of the county board of commissioners shall verify and file with the clerk of court of general sessions a copy of such statement of analysis and account (*Journal American Medical Association*). Provided, that nothing contained in this act shall apply to counties of Barnwell and Williamsburg. The account of claim for the services herein named shall be certified to by the coroner, and if dissection is made it shall be certified that it was done at the request of the jury.

GONORRHEA OF THE RECTUM AND MOUTH. By GEO. J. C. LARSEN, M.D., St. Louis.

The rarity of this class of cases has caused many in the profession to doubt its existence; but since the discovery of the gonococcus by Neisser, together with evidence of Drs. Wolf, Matterstock in Wurzburg clinic, together with the report of Dr. Winslow, of Baltimore, and various other reports, there can be no doubt but that most of the catarrhal affections met with in the rectum, and sometimes in the mouth, are gonorrhea. Especially so since pederasty and sodomy, together with the practice of sapphism, has become rather common among the prostitutes of large cities. Should one undertake an investigation for reports of this class of cases, nearly every large genito-urinary clinic would respond with one or more cases.

Causes of this disease will be found to be by direct infection of mucous membrane by the virus, brought about in the female by the discharge from vulva to anus, then to rectum or by unnatural coitus, where the active party is inoculated and well-advanced in the gonorrheic state.

Among the first symptoms of gonorrhea of rectum is a sense of heat, tingling and itching, which manifests itself in from forty-eight hours to three or four days after exposure, followed by heavily coated tongue, difficult defecation and general malaise condition, usually accompanied by high fever, lack of appetite, pain in the sacral region. When discharge first appears it will be thin, then milky-white, and finally becomes thick, and assuming a greenish yellow-brownish, in abundant quantity. As to the appearance of the anus, that depends entirely upon the habits of patient. In the pederast and sodomist the sphincters will be relaxed, the folds obliterated and generally more or less in fundi buliform. If the patient does not practice these acts, we find the anus swollen, the folds edematous, much inflamed, excoriated, sometimes ulcerated, profusely bathed in pus. At times this disease is complicated by condyloma, fissure and erythema. In cases where patient is cleanly, the severe symptoms may pass away; but if uncleanly, the symptoms may be protracted and give attending physician much trouble. In men, diagnosis of this class of cases frequently becomes difficult; while in women diagnosis may be easily made—generative gonorrhea usually accompanies it.

Gonorrhea of the mouth, owing to the epithelium of the

mouth being alike to that of the urethra, together with the knowledge of sapphism being practised, should lead one to believe that this class of cases would be frequent. Yet so far the reports are not as frequent as those referring to the rectum. The mode of infection is most frequently due to direct contact with gonorrheal pus, either being transmitted by the hands or by direct contact of mouth with diseased genitalia; the latter being mode of transmission in cases which I shall hereafter report. Symptoms usually appear early, sometimes within thirty-six hours. Patient complains of raw, dry, burning feeling in mouth, accompanied with a bad taste; gums swollen, mucous membrane red and angry. Herpetic eruption soon appears about the lips, swallowing becomes exceedingly painful; enlarged parotid and lymphatic glands; patches of grayish-yellow pseudo-membrane will appear, which, when removed, leave angry ulcerated surfaces; profuse muco-purulent secretion exudes; patient complains of constant dribbling. As to diagnosis, the disease is readily recognized, as it can hardly be confounded with anything but contagious stomatitis. No exposure having taken place to that disease and pain being severe, together with the swelling of the glands and purulent secretion, leaves but the disease. Should one still be in doubt, the finding of gonococci in the pus would be conclusive. When reasonable care in treatment of this class of cases is observed, recovery usually takes place in eight to ten days.

CASE I. *Gonorrhea of Rectum*.—Frank W., age 30, colored, married, coachman, Sept. 25, 1894; complained of severe itching, burning, with a bad discharge from rectum, which had been there forty-eight hours. Examination of the rectum showed relaxed sphincters, entire obliteration of folds, appearance that of a good sized funnel, profuse pus discharge of yellowish-brown color. General examination showed a heavy-coated tongue, temperature 100°, pulse 90. After close and repeated questioning, patient admitted having submitted to pederasty. Treatment consisted of thorough washing of parts in bichloride solution, than changed and frequent application of liq. campho-phenique, together with attention to general health, brought complete recovery in twenty days.

CASE II. Bertha W., age 20, white, single, prostitute, Aug. 30, 1894; complained of constant itching of rectum and swollen vulva with severe pain on micturition. General examination

showed heavy coated tongue, temperature 99.5°, pulse 86. Examination of parts showed a pouting anus, highly inflamed, dry and glossy in appearance; upon touching profuse discharge appeared; inserting rectal speculum excoriated surfaces opened; severe pain. Stated that she had the discharge from the vagina for two weeks, but in small amounts, principally in the morning, severe pain on micturition; used medicine furnished by druggist, but did not improve any, and finally anus became infected. Pus was of thick gray-yellow color, very offensive. Thorough cleansing of parts with bichloride solution 1-500, after which application of liq. campho-phenique to anal parts. Injection of bichloride solution 1-2000 to vagina, followed up with mild astringent injections, and repeated application of liq. campho-phenique, with attention to bowels, constituted the treatment. All discharges completely stopped; excoriations healed in sixteen days.

CASES III AND IV. Maude R., and Emma D., age 25, white, single, prostitutes, came to my office June 20, 1896; complained of extremely painful deglutition and raw patches in mouth, dry and constant hot feeling in mouth. Upon examination herpetic eruption about mouth, gums greatly swollen and receding from teeth, bled upon slight pressure, abundant mucous patches covered with a gray slightly-yellow pseudo-membrane. Confronting them with absolute statement that they were accustomed to practice sapphism, they finally both admitted it as a fact; one having practiced it more than a year and second one evidently being a pupil of the first.

Treatment consists of thorough application bichloride solution 1-1000 to parts affected, together with frequently washing out of mouth (every 2 hours) with bichloride solution 1-3000. After ten days a few mucous patches still remained, to which application of liq. campho-phenique was made, and in twenty days complete recovery had taken place. The above case has been reported from clinic of the Barnes College of Medicine as well as from my private work. I have two more cases of gonorrhea of rectum of which I have but incomplete reports; hence have not mentioned them. But above cases fully convinces me that in every genito-urinary clinic reports of this class of cases can be found, especially during late years, when it seems as though some of those most crying vices have invaded our large cities. As to treatment, I believe that the one I made use of answers every purpose, is easy of access and at same time thorough.

1202 Russell Avenue.

Correspondence.

A READY METHOD OF RELIEVING DYSPNEA.

Editors ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

Recently, in this city, a gentleman entered a bar-room suffering with an attack of asthmatic dyspnea. So violent was it, that he had great difficulty in making himself understood. Procuring a syphon of carbonated water and a large glass, he filled the latter nearly full of the water and placing his hands around the edges, so as to make an improvised inhaler, he placed his mouth over the glass and drew in an inhalation of the escaping carbonic acid gas. He repeated this several times, each inhalation growing visibly easier, and in a very few minutes he was entirely relieved.

On being questioned by a by-stander, he stated that he had accidentally learned, some years ago, that inhalations of carbonic acid gas gave almost instantaneous relief in similar attacks, and that he kept at home an apparatus that he had devised for use in this direction. It consisted simply of a jar with a long neck into which he had stuck a stopper perforated with a bit of India rubber hose. He kept ready a strong solution of sodium bicarbonate and some very strong vinegar, and whenever he felt the approach of an attack, or whenever suddenly attacked, as in the present case, he mixed some of each fluid in the jar, put in the stopper and inhaled the gas evolved from the mixture.

On being told the possible danger of the proceeding, he laughed and said he had used it many, many times, and never experienced anything but benefit—unless, he added, “nothing that I take into my throat has any taste for a few minutes afterward.” “Why,” he added “you can tickle my throat with a straw or a feather and I scarcely feel it—it will not make me gag,” and to illustrate the fact, he stuck his fingers far back into the fauces without apparently producing any effect.

Subsequent experiment made by the writer, in his own person demonstrates the fact that inhalation of carbonic acid gas produces a comparatively deep and prolonged anesthesia of the larynx.

These facts may not be new, but the writer does not remember to have seen them in print, or even to have heard them before, and he records them now for the benefit of the profession. He has since learning the fact recommended the procedure to two asthmatic patients, both of whom were almost instantly relieved of dyspnea by the inhalation of the gas. Doubtless a more efficient and certainly a more elegant apparatus than that described might be devised for the generation and inhalation of the gas.

St. Louis, August 19, 1896.

F. L. J.

SHOULD PHYSICIANS ADVERTISE?

The latter part of the nineteenth century shall ever be characterized as that period when advertising had not only become an art, but was looked upon as a necessity as well. Let us take a survey of the wonderful commercial and intellectual progress, the almost incredible number of conveniences which have been placed within the grasp of the most lowly, as well as the wide discrimination of knowledge, and the ease as well as comparative cheapness which make their accessibility not only a possibility, but a fact, and we will be inevitably driven to the conclusion that one of the principal factors in the production of such results is the dissemination of news. This very dissemination is the apotheosis of the advertisement, and, strange as it may appear, the highest form preceded its more elementary component parts. The very fact that news as such could be diffused so rapidly and thoroughly by means of printer's ink lead the most superficial thinking mind to the inevitable conclusion that the mere announcement of the fact that its owner possessed certain goods, chattels, or merchandisable commodities, of no matter what nature, would lead others not possessing them to seek him to effect a barter and lead to the advertisement. If John Doe, however, presented an advantage attaching to his goods, either in the way of superiority of quality, variety in kind, or cheapness in price, he found it to be advantageous to himself to make the matter public. This naturally follows as the most logical sequence of the former proposition, and the truth of all of those given has been amply proven by the logic of events, and is one of the most ordinary and common results of observation.

Let any successful business man or corporation be asked to

give the secret of their success and they will not hesitate to say that it has been due to the demand for their goods on the part of the public. Follow, step by step, the evolution of the largest and most successful business enterprise you may be acquainted with, and you will find that it had but a small beginning. What expanded the original tiny bud to a blossom and then nourished the roots, increasing the number of branches and making the entire growth spread to such huge proportions, each twig full of fecundity, if not advertising? The immense power of advertising, its far-reaching consequences, and its all-pervading advantages are too patent to need comment or to require any one to dilate upon them. Our boasted knowledge of the histories, both public and private, of nations, now dead for centuries, was derived and is still being added to by the acquirement of what in reality should be called historical advertising on their part. For what else is the record of the name of a king, the laws promulgated by him and the various wars waged by him? The ancient Egyptian dynasties were each fond of dwelling upon its victories in both peace and war, and the vain-glorious monarch erected enduring and stupendous monuments to commemorate the fact that he had once existed. Was this not merely a modification of what advertising is? It might be argued that the former were enduring monuments, and the latter are but experimental efforts; but, on the other hand, the former procured fame as their ultimate end, and the latter most frequently are merely employed as the instruments for the purpose of increasing profit and accumulating money, and eventually bringing that condition whose ultimate is wealth and the power it brings.

To merely outline the advantages derived from advertising would take too much time, more especially in view of the fact that they are too well known to every intelligent person. What I propose to inquire into more particularly is in regard to the advertising, both direct and indirect, indulged in by physicians. It is well known that there are various sorts of advertisements indulged in by professional men. The direct or "straight ad.," as it is known, consists simply of a card giving name, address, and occupation, and is to be found chiefly in the small weekly country papers. Of course, no attention will be paid to the blatant, deceiving advertisements of quacks which, upon their very face, carry the record of their full iniquity as well as that

of their promulgators. In these cases there can be no question of ethics or of good taste; it is simply a premeditated effort to trample upon as well as eschew all common decency, and the perpetrators of such moral obliquities should be pilloried. When individuals become so debased as to glory in their prostitution of the noblest profession, decent people should see to it that legal enactments be passed adequate to the proper punishment fitted to the individuals meriting it.

The advertisement of which I desire to speak more particularly, is one which has many varieties, to some of which the medical profession has made strenuous objections, and to others of which but a half-hearted support or none at all is conceded. I refer to the "indirect ad." It is this form which has been so potent in making lawyers celebrated, and which has in no small degree contributed to the reputations of some medical men. The essential nature of each is the same, and yet there are necessary conditions which make them the antipodes of one another. Thus, the lawyers engaged upon a criminal case have every step recorded, and the various testimonies which are elicited are given with a fidelity to detail which is not only a credit to the newspaper printing them, but satisfactory to the reader, as if he had been actually present. The record of the work of the lawyers speaks for itself. Let one of the lawyers in a suit make ever so small an error, or expose the slightest flaw in his armor, and his opponent will not only be quick to discover it, but will make it a matter of record, and forthwith it is read by all. Again, an insignificant case will not be magnified to huge proportions. The vital interests involved in a civil suit, or the enormity of the crime, are the features which make it interesting to the public, which is more or less acquainted with the subject. Not so in medicine. Like the spectators at the gladiatorial combats of ancient Rome, the public wants blood and is never satisfied until glutted with it. The record of wonderful operations must be spread before it, or the wonderful cures of incurable diseases must be dilated upon with the most detailed minutiae, which the craving for notoriety of one man helped by the superheated imagination of another can supply. How often are we regaled with accounts in the newspapers of a wonderful surgical operation, which is of the rarest nature, and which we have seen hundreds of times. What wonderful dexterity is

dilated upon with all the unction a reporter can summon in the description of the ablation of a simple lipoma. How enthusiastic he will grow over the almost miraculous solvent powers of a remedy which has annihilated a cancer of the "stomach," which was a scibalum. It is this very tendency to distort facts, to trumpet successes which never followed, that deceive the public, and unduly magnify mediocre capacities to the detriment of worth which is greater and more modest. The foolish and credulous public is never given the results of wonderful operations, nor the final report on remedies, which have been trumpeted with all the bombast and hyperbole of a circus poster or of a patent medicine advertisement. The assertion made by physicians that such accounts are made without their knowledge may be easily verified by reading them. The fine hand of the medical man may always be detected, if it has been concerned in the matter, and the directing spirit which controlled the matter read between the lines. It is true that many such accounts are not inspired. Many a clinic at a public institution has been reported without the knowledge of the lecturer or operator; and the remedy for such a condition of affairs is much more easy to suggest than to carry into execution. Besides, it really becomes a question, whether such truthful reports are after all as reprehensible as some endeavor to make them out.

Reverting to methods of advertising which medical men have been accused of resorting to, we find the writing of medical articles has been animadverted upon by those who speak much about the code and are unable to construct a grammatical sentence. The writing of articles in medical journals is certainly a method of advertising, and a most laudable one, which should be encouraged. It is not only of the highest utility to the professional reader, but is also of the greatest benefit to some of his patients perchance. It is preferable to the newspaper medical article written by a physician, and even this is not to be condemned by any means, for it furnishes a mass of useful information, derived from an authoritative source, which is more satisfactory than any reportorial efforts could be. Of course it advertises the writer thereof, and increases his income perhaps, and the jealousy of his confreres most certainly. In Europe this method of writing for the newspaper by medical men is ordinary and arouses no ire; here interviews are gener-

ally substituted therefor, and these are certainly more unsatisfactory, both as a means of supplying information and of securing a free advertisement.

Medical societies, which are the self-constituted guardians of the ethical morality of the medical profession, simply act as the instruments for advertising their members. Let us see with what unction medical men append all their titles to their names, and follow this with a recital of the names of all the medical societies of which they may be members, fellows, corresponding members, honorary members, officers and ex-officers. Is this not a method of advertising their greatness? But this is not all; more titles are necessary. Surely no one could omit to add to his already-lengthened list the various dispensaries and hospitals with which he is connected, either as an active participant or as consultant. Surely this is advertising *in excelsis*, and yet none but the small minority that cannot indulge in this luxury ever enters a protest against the practice, whose universality is such that it cannot be destroyed or overthrown. Besides, why should it, when it is possibly the only reward reaped for daily toil, assiduous study and earnest work in the endeavor to advance the true scientific interests of medicine? The most notorious promoters of this very matter are the medical journals, which are presided over by men who act as editors, and who are more ready to advertise others than themselves, and who are looked upon as the most unfair judges of the work done by others. Long-suffering and patient as the guild is known to be, it never utters a protest, but keeps on advertising its calumniators, continually increasing a debt which shall never be paid. The medical editor is well advertised by the very fact of his position. And why should he not reap this empty honor, which is only rewarded by toil, and in the upholding of which he is expected to be forever discovering new stars in a firmament already bedecked with bodies of the first magnitude, and so replete with inferior constellations that a new one just appearing sheds but a faint and flickering beam?

The last variety of advertising affected by the medical profession to which I will allude is that which seemingly has found the greatest favor in the eyes of the truly good and ultra-ethical: this is the medical college. The universal complaint which we hear on all sides is that there are too many medical graduates; that the

profession is over-crowded; and despite all this, the medical colleges, instead of decreasing in number, increase, and their facilities are also increased. Higher medical education, lengthened courses of study, and more difficult examinations, have been resorted to to reduce the number of students. On the other hand, the medical colleges must have, not only students, but graduates as well, or else the efforts at advertising on the part of the professors, lecturers, assistants, etc., will have come to naught. We are told that there are too many medical colleges; but surely there are not too many good ones. There may be too many professors, and yet how few there are comparatively who are really deserving of the title. The medical college announcement is really a most valuable and eligible means of advertising a medical man to his professional brethren. If he is not connected with a college, what more simple than to invite a half-dozen friends to join him and start a new medical college? Thus will he be enabled to advertise most safely and completely. The method is a most legitimate one, and is certainly not calculated to deceive the public. We have heard of some professors in medical colleges who underscore their names in every locality where such occurred in the announcement, and then send such marked copy to every patient and acquaintance. This is another mode of advertising adopted by some medical men which lacks deplorably in form.

I have thus briefly sketched a few of the methods of advertising used among the different members of the medical profession. Any one if carried too far will condemn itself; but this is certainly no valid argument for the total suppression of advertising in all its forms. The physician should advertise in a legitimate manner, such as will not prove repugnant to good taste and decency. The pursuit of the medical profession is dual in nature. The purely scientific part is certainly strictly professional, but a business side is constantly obtruding itself upon the attention of the physician. It is this very business aspect which requires treatment of a business character. The public cannot see any wrong in a physician advertising himself and calling attention to his superior qualifications. The courts can see no wrong in it; but there are many shades of difference which the medical profession itself has established, with too rigid a hand perhaps in many instances. Liberty of thought and of action should be

established with greater liberality, and the beginner be given an equal opportunity of succeeding. By permitting advertising with a certain latitude, there is no doubt that less acrimony would exist and less charges be preferred in medical societies and among the members of the medical fraternity in general.

ONE WHO ADVERTISES.

Announcement.—Dr. H. W. Loeb, Secretary of the Mississippi Valley Medical Association, states that he desires to announce that the date of the meeting of the Association has been changed to September 15, 16, 17, 18, in order to permit the members and their families to take the opportunity accorded by this change to make a pleasant tour through the Yellowstone Park, so justly celebrated as the Wonderland of America.

Prominent resident members of our Association in St. Paul and Minneapolis are formulating plans for the special Yellowstone Park excursion trip, to leave on the evening of September 18th, arriving in Mammoth Hot Springs, in the Yellowstone Park, about noon on the following Sunday, and devoting the following five days to the wonders of this remarkable region, returning to St. Paul Sunday, September 27th.

The cost of the trip, including all expenses west of St. Paul, will be announced in due season, but we are authorized to say that the figure will be a very favorable one; and we simply wish at this time to make the preliminary announcement of this most enjoyable feature of the St. Paul meeting, so as to give members the opportunity of making their plans in advance to join the party. It is desirable that there be a party of 100 or more, in order to obtain the benefit of the special train service in both directions.

It is urged that all members who desire to join the party should send their names to Dr. C. A. Wheaton, Chairman of the Committee of Arrangements, St. Paul, at as early a date as possible. If you desire to read a paper before the meeting, please send to the Secretary the title at once.

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Editorial.

OUR MEDICAL COLLEGES.

The future of the medical colleges in the State of Missouri is one which, at the present moment, is giving rise to a mass of speculation. Since the State Board of Health has made its various requirements, both in the matter of time and of preliminary education, there are some who fear that other States will profit in the matter of the number of students. A four-years obligatory course and preliminary examinations in Latin and other branches are looked upon as deterrents to a large number of aspirants to medical honors.

There is no doubt in our mind that these requirements will have a marked effect in the diminution of the number of students. On the other hand, it will more effectually elevate the standard than any other means heretofore adopted. It will accomplish the end to which the State Board has been so assiduously laboring. It will make a license of the Missouri State Board of Health to practice medicine an honor to be sought, and not a mere formality based upon a diploma more or less deserved

by its holder. Great credit is due the Board for its seriousness and for the firm stand which it has taken in the matter.

* * *

The medical colleges in St. Louis have undergone very few changes, and these have chiefly been in the way of creating additional chairs. There is no doubt whatever that they are on a better footing for the purposes of teaching than they ever were before, and the clinical material available for instruction is larger than it ever was. The advanced classes will be large ones this year, and the number of graduates will surpass those of previous years. This is due to the fact that students have availed themselves of the opportunity of graduating in three years instead of four, a term which has been declared obligatory. September will no doubt witness a falling-off in the freshman class of every college, but there will be a corresponding increase in the qualifications of the young men who enter upon the study of medicine. It will raise the standard of qualification of the graduate, and will enable him to enter the arena of medical practice fully equipped for the career he has chosen. The long-desired condition which has been so vigorously clamored for by the established members of the profession is rapidly nearing its fruition, and these older members will soon find an incentive to perfect themselves, or be in danger of losing their foothold.

* * *

Nearly all the colleges will begin their sessions in September. In St. Louis they will be severely hampered in the way of clinical lectures at the City Hospital. The tornado destroyed the old structure, which, whilst a ramshackle affair, was in all respects superior to its substitute. In the latter there are no provisions made for clinical lectures. No amphitheatre exists, and the best substitute which can be provided will be but a poor affair at best. The hospital commission has been named, but it will be many years before an adequate structure is built. Colleges will be forced to increase their clinics, and even then such cases as are not ambulant will not be available. This will naturally force a limitation, unless each one provides free hospital privileges for the purpose of instruction.

* * *

Since writing the above we have learnt that an amphitheatre is being built at the City Hospital. Thanks to the energy of Dr.

Sutter, the Superintendent; nothing will be left undone that can in any way contribute to the efficiency of the institution. We have been much pleased to see this move on the part of Dr. Sutter, and all the medical colleges of St. Louis ought to appreciate his efforts in their behalf. There is but one slight disadvantage connected with the new amphitheatre: owing to restricted space but 150 students will be accommodated, and, as a natural consequence, only the senior class of some of our colleges will be enabled to obtain the benefit of the clinics held at the City Hospital. However, this may be corrected in time, and when a new hospital is constructed ample provision will be made for a large and commodious amphitheatre.

A FIENDISH ACT.

Those who have followed the accounts of the progress of the Cuban insurrection have been horrified on more than one occasion by the recitals of cruelties attributed to the Spanish soldiers under the approval and often by the orders of the "butcher," Captain-General Weyler. If we are to believe the Spanish newspapers, the Cubans are still more cruel and fiendish than the Spaniards. We quote the following from the *Medical Press and Circular*, one of our most valued English contemporaries:

"A FIENDISH ACT.

"This week's issue of our Spanish contemporary, *El Siglo Médico*, contains an account by Don Decio Carlan of a fiendish cruelty practiced by the Cuban rebels on a young surgeon of the royal army. A mongrel crowd of rebels having surprised a small detachment of royal troops, took the surgeon of the party prisoner. At their request he attended the wounded rebels, and when he had completed his task his captors bound him and chopped off both his hands with a hatchet; they then bound him to a tree and left him to his fate. Fresh from the work of mercy he becomes a prey to the tender mercies of the wicked, which were carried out with fiendish cruelty. Probably none are more vile or cruel than the half-castes and fillibusters recruited from Yankee corner-boys who form the rebel troops."

Whilst we do not pretend to know anything in regard to the truth or falsity of the statements therein made, we do certainly protest against the uncalled-for comment in regard to "Yankee corner-boys." We do not know that an American is more vile or cruel than one of any other nationality, and an attempt like

the above to cast a stigma upon a nation is not only below the dignity of an intelligent scientific journal, but is stooping to a degree of pettiness of which we never suspected it of being capable. We hardly know what is meant by the expression "corner-boys," unless it be equivalent to our word "hoodlums." Even then we do not know that they would exhibit such fiendishness as is described in the above item. We know that there are types of a similar character in every country in Europe, and if compared with our "toughs" they might perhaps suffer in the matter of humanity, or rather in the greater amount of brutality which they possess. Besides, we desire to add that the principle *ex uno disce omnes* is a very poor one to adopt, and is very apt to lead those who follow it into many grave errors.

But to revert to the account. If such an act has been performed, as is stated by *El Siglo Medico*, the perpetrators of such unparalleled brutality should be hunted down by the Cubans themselves and punished in a manner to make it a lasting example to all others. The brutality, when coupled with the ungratefulness exhibited, would be a disgrace to a Hottentot or to a Digger Indian. We would expect better from a Patagonian. We are more particularly concerned in this piece of news from the fact the victim of this fiendish brutality was a physician who did his full duty towards his enemies. The custom from time immemorial has been to invest the medical man with sacerdotal honors, and so he has always been regarded, as he has always been a minister to relieve the sufferings of his fellow-man, be they friends or enemies. He has never abused his power nor his skill. There is too much professional pride in a physician to prostitute his talents for purposes of petty revenge.

After due consideration of the story given above, we are inclined to doubt very greatly its veracity. We cannot bring ourselves to think that the human instinct has so far diminished as to become degraded to the extent noticed. We are rather inclined to look upon the account as one garbled by a jaundiced mind, and as a feeble attempt to weaken the cause of the belligerent Cubans. Spain and many European countries are regaled with reports of the atrocities committed by the Cubans, and we have sensational accounts of Spanish cruelty and fiendish outrages. It will probably take some time, but there is no doubt that the history of the uprising in Cuba will correct many of the reports which are at present exaggerated.

Dermatology and Syphilology.

Etiology of Pemphigus of the Newborn.—Peter (*Berliner klinische Wochenschrift*) records a case of pemphigus in a newborn child whose mother was suffering from puerperal fever. A bacteriological examination of the contents of the blebs showed the presence of a diplococcus analogous to that described by Demme, and the staphylococcus aureus and albus. The same organisms were found in the milk of the mother and in the blood of the infant. The author, therefore, considers the pemphigus a result of infection through the milk.

Nasal Herpes Secondary to Toothache.—George Carpenter, of London (*Pediatrics*), calls attention to a fact frequently observed by him, that herpes facialis may be due to irritation of the trifacial nerve reflexed from some dental affection. He suggests that facial herpes in the young should not be disposed of in an off-hand way as only a "cold," for children suffering from toothache do not always complain of the teeth. Facial herpes, therefore, should be looked upon as possibly due to dental worry, and its cause at least be sought within the mouth.

Anal Pruritus.—Dr. L. Brocq insists upon (1) absolute suppression of wakefulness, fatigue, all kinds of excesses, and physical and intellectual exhaustion (*Am. Jour. Med. Sc.*). He prescribes tranquillity, and, when possible, country life, outdoor exercises, avoidance of bicycle and horseback exercise. All excitants are prohibited, tobacco, coffee, tea, *liqueurs*, alcohol, strong wines, pastry, preserved fish, game, truffles, *pâte de foie gras*, and old cheese. (2) Regulation of the passages and not to visit the closet before anointing the anus and surrounding parts with pure vaseline or fresh cold-cream. (3) Bathing the painful points, morning and night, with a decoction of cocoa-leaves, as hot as it can be borne, to which is added a glycerin solution of carbolic acid. (4) Keeping the anus well powdered with a mixture of powdered talc and zinc oxide. (5) Applying every third day a 20 per cent. solution of silver nitrate. (6) Using for severe attacks at dinner and bedtime a capsule containing seven grains of antipyrin. (7) Using hot sedative douches and static electricity.

Pityriasis Alba Atrophicans.—Krüssing reports a case of this rare and curious affection (*Dermatologische Zeitschrift*). The patient was a man forty years of age, in good general health, without any history of any inherited tendency to cutaneous disease. The alterations in the skin occurred on both lower extremities and were the same on both sides. Around the ankles the skin was livid, thin, tightly stretched, and covered with variously sized, greyish-white, shining, for the most part firmly clinging, scales. Owing to the stretching of the skin the natural marking had disappeared and it was no longer possible to pinch it up in folds. The subcutaneous fat also seemed to be atrophied and the skin seemed to lie closely upon the tendons and the bone (*Exc.*). Movements of pronation and supination of the foot were hindered in some degree by the tightness of the skin. The venous network was clearly visible through the thin skin. Upon the leg the scales were more delicate, thinner, branlike, and less firmly adherent, so that they could be in great part wiped off with the hand. The muscles of the calf were also diminished in volume. In the hollow of the knee the skin was tightly stretched, so that extending of the leg was disagreeable. Upon the thigh the changes were less marked, since they were of more recent origin. On both sides the affection reached in front of the groin, behind to the lower border of the gluteal muscles. Sensibility, patellar reflex and electrical excitability were normal. The disease had begun when the patient was thirteen years of age on the left ankle, with the appearance of a dry, scaling, pale spot which burned slightly rather than itched. This spot had never been reddened, swollen, or moist, nor had any other change in the skin—papules, vesicles—preceded the appearance of the scales. This dry scaling gradually extended over the whole lower extremity. The disease did not begin upon both extremities at the same time, the left one having been affected ten years before the right one. Histological examination of excised portions of the altered skin showed marked atrophy of all parts, but no evidences of inflammatory change.

Chromidrosis Cured by Local Treatment.—Millée says (*France Méd.*) that chromidrosis, or colored sweat of the skin of the eyelids, was for a long time, and is still, regarded by many authors as modified sweat, depending on a nervous affection, which requires constitutional treatment for a successful result

(Parrot). In a case of chromidrosis in a young girl, 18 years of age, in whom the free margin of the eyelids was the seat of a slate-colored discoloration, Millée prescribed lavage and local cleansing, alcoholic friction; internally, bromides, etc. At the same time he advised the use of compresses saturated with a solution of mercury bichloride. No improvement followed. He then concluded to limit the treatment to applications of yellow oxide of mercury (30 ctg. of the oxide to 10 gme. of vaseline). On account of the itching, carbolized water was substituted for the solution of hydrarg. bichlor. for washing the eyelids. At the end of one week all trace of the discoloration disappeared. One week later the cure still remained permanent. In consequence of this result Millée believes that local treatment alone suffices to remove the disease. He doubts (*Ex*) that there are sufficient reasons to insist on the influence of a nervous condition in the production of colored sweat. On the contrary, he thinks that a peculiar bacillus of putrefaction may be found some day as the etiological factor.

Circinate Syphilides.—Brocq, in one of his clinical lessons at the hospital Larochefoucault, recorded in the *Jour. of Med. and Pract. Surgery*, has pointed out that circinate eruptions are very often quite difficult to diagnosticate on account of the peculiar arrangement which is frequently assumed by many syphilitic manifestations. By way of illustration he showed a man with a circinate eruption on his breast, which, owing to its location, might be classed under seborrheic eczema, but had to be classified under the head of circinate psoriasiform syphilide—firstly, on account of the perfectly regular circinate shape, traced as with a compass, consisting in its circumference of small papules analogous to those of lichen; secondly, on account of a new well-defined papule having appeared secondarily in the center of the circle, and whose presence under such conditions must always lead one to think of syphilis and to look for ganglia and other manifestations of the disease. In this instance Brocq found ganglionic enlargements, and desquamating specific lesions in the palms of the hands; the disease dated back six months (*Am. Med.-Surg. Bull.*). This circinate configuration can also be found in syphilitic roseola and gives to this secondary manifestation such a great resemblance to pityriasis rosea (of Gibert) as to render the diagnosis difficult. It can usually be

distinguished by the absence of desquamation. A fact which is less known is that tertiary circinate roseola occurs in very large circles situated on the trunk. Brocq has studied a very interesting case of this kind in an individual who had a chancre 12 years ago, and who showed a large circle of roseola which disappeared on superficial pressure. This tertiary erythematous syphilide without infiltration of the integument exhibits also this peculiarity: that it does not disappear entirely under mercury; iodides alone cause it to fade, and mixed treatment makes it disappear only for a very short period. This manifestation in Brocq's case was especially tenacious, and only disappeared, although its location was very superficial, after very prolonged treatment.

O-D.

Riotous Specialism.—A young English lady, who is a teacher of English in one of the chief ladies' schools in Germany, writes in a private letter to her father, who is a doctor (*Scalpel*) —“* * * * I dare say that I shall have to go with the girls to the dentist instead. This house is a regular hospital; the girls are always going to doctors and dentists. I do think they might have their noses scorched at home in the holidays instead of waiting till they come to school. There are two whose noses are being burned somehow; they go twice a week to the nose doctor; two others have to go three times a week to the eye doctor; and five others pay visits to the dentist, some of them every day. Then there are visits to the dressmaker, and others who want to go shopping. * * * One got herself in trouble after using a wash on her face, prescribed by the doctor who is a specialist on freckles; her face looked like raw beef for a week, and her freckles were not cured. The worst is that I have to take them to all these doctors.” We may, in England, be thankful that our girls in their happy school-days are not yet the victims of specialists, and let us hope that lawn tennis, swimming, cycling, and country walks will develop a love of nature in many of its aspects, may long keep off the day of their falling into the social evils of needing specialists for their noses, throats, teeth, wombs and its appendages, freckles, etc.

Medical Progress.

THERAPEUTICS.

A Sedative Antipyretic.—In most cases of pyrexia there is a condition of over-excitation of the nervous system, requiring the administration of a sedative. As Dr. G. F. Lower (*Cincinnati Lancet-Clinic*, July 4th, 1896) points out, whenever we have a pyrexia that requires suppression we always have a nervous rather than a feeble pulse and over-taxed nervous system, and hence it often becomes necessary to make a perceptible impression upon the entire organism. It is therefore highly advantageous to administer a remedy which combines both the properties of a febrifuge and nerve sedative, and for this reason, as emphasized by Dr. Lower, phenacetine which possesses these combined actions is of double value. He remarks as follows:

“For example, to reduce a temperature of 105 only one degree and fold our arms in satisfaction, is languishing and inexcusable treatment. It is a reproach upon the science of therapeutics and a trifling with human life.

“In proper doses it is always safe, with infant as well as the octogenarian, and in all stages of diseases. There is no functional trouble or organic lesion and no age in which this drug is contraindicated.

“To a child I give two to five grains, every one or two hours; and to an adult five to twelve grains at the same intervals. From one to three doses is nearly always sufficient to produce free diaphoresis, and thereby reduce the temperature three to four degrees in that many hours.

“In addition to this I practice hydrotherapy, and especially in children cold applications to the head and hands.”

The Hypnotic Effect of Pellotine.—Prof. F. Jolly reports his clinical tests with pellotine muriate (the new hypnotic introduced by Dr. Heffter, of the Pharmacological Institute of Leipzig, and manufactured by C. F. Boehringer & Soehne, of Mannheim), in the *Therapeutische Monatshefte*, June, 1896. He employed pellotine muriate, preferring this salt on account of its ready solubility in water; his experience covers forty cases at the Charité Hospital of Berlin. In one-half of these cases

the drug was administered during the day, either by mouth or subcutaneously; doses of $\frac{1}{8}$ grain (0.02) caused langor and sleepiness in quiet patients, but usually this effect followed only after $\frac{3}{8}$ to $\frac{2}{10}$ grain doses—causing several hours' sleep within half to one hour after administration. In some cases the pulse rate was decreased, in others not at all, and only at the beginning of sleep. In painful affections (lancinating pains in tabes, neuritis and ischias) sleep was also induced, but an anesthetic effect was only occasionally noted before and after sleep. In excitable and delirious patients the above-mentioned doses were insufficient; even 2 grain (0.12) doses did not produce sleep, but had a calming effect—lasting all day—on the patient.

In twenty cases the drug was administered at night as hypnotic, and $\frac{3}{8}$ to $1\frac{1}{8}$ grain (0.05—0.08) doses were found to equal in effect 15 grains of trional or 22 to 30 grains of chloral.

Of side-effects, excepting the inconsiderable slowing of pulse-rate, a few patients exhibited giddiness and a feeling of unrest before sleep ensued; a few also complained of similar feeling upon awakening in the morning. In several cases the hypnotic effect was not produced, but in these other hypnotics had also proved ineffectual. In no instance were serious side-effects noted.

The author then quotes six typical cases from his records, in which four, one and five hours sleep were induced in three cases; one slept through the night for three consecutive nights; one slept peacefully through the night while otherwise her rest had been frequently broken; and one slept fairly well—although there occurred two periods of wakefulness.

Prof. Jolly's report is generally favorable, and he concludes that he will continue the use of this new agent, and will render additional report after more extended trials.

Peroxide of Hydrogen.—Dr. Warren Brown, of Tacoma, Washington, in a paper on "Peroxide of Hydrogen," read before the Washington State Medical Society, and published in the *Medical Sentinel*, of Portland, Ore., Feb., 1896, after alluding to its method of manufacture, speaks of it therapeutically as follows:

Gonorrhœa may often be aborted by using a full-strength hydrogen dioxide injection immediately on the very first appearance

of discharge. The injection should be used four to six times in twenty-four hours and retained for five minutes.

Cystitis, where pus is voided with the urine, often yields rapidly to injections of a solution containing two ounces to the pint.

Otitis media is treated by hydrogen dioxide solutions in various strengths, from 6 per cent. upward.

Eye diseases, where there is a purulent external inflammation, are constantly being benefited by this agent. The Wills Eye Hospital, Philadelphia, uses a 50 per cent strength of the so-called 15-volume solution. Blepharitis marginalis is quickly cured by touching the edges of the lids once or twice daily with a strong solution, care being taken to avoid getting it into the eye.

Ulcers of all kinds improve rapidly under its use, and for treating and cleansing venereal sores, as chancroids, etc., it is of great service.

Empyema, especially where there is from the first a stinking sanious exudation following incision, is very satisfactorily treated by washing out the cavity with a solution from one-half to full strength.

In appendicitis, the abscess cavity is cleansed with this solution by many operators, in preference to any other antiseptic. Robert T. Morris, of New York, has laid special stress on the value of the peroxide in these cases.

In follicular tonsilitis, the use of a spray, diluted just enough to prevent the smarting sensation, and alternating with this one of the alkaline antiseptic sprays or gargles, is a very satisfactory procedure.

Diphtheria and all naso-pharyngeal inflammations, where there is a pseudo-membranous and septic condition, have been treated very widely by means of this agent. I like the plan of Jennings in Detroit, who uses an irrigation of an aqueous solution of one-eighth each of hydrogen dioxide and listerine. He throws the solution into the pharynx with an all-soft rubber syringe every one, two or three hours. The plan is an admirable one for treating children, and the combination is pleasant and effective.

Atrophic rhinitis is benefited remarkably by the use of a 40 per cent. spray. It should be used a few minutes before the employment of the usual alkaline, stimulating spray, and the powder insufflations. In this way the scabs are loosened, muco-

purulent secretions are dissolved, and a stinking breath is converted into one that is pure and sweet.

In acute cases of eczema of the leg, we find this agent of the utmost value. The tissues are inflamed, hot, swollen and oozing, the itching is almost unendurable, the odor is offensive. To secure the best results the limb is elevated, and a diluted solution of the peroxide is applied frequently, with cheese cloth, gauze or an atomizer. In two or three days a marked change for the better will be apparent, the pruritus is allayed, the purulent exudation is checked, and all inflammatory symptoms are subsiding. At this stage we begin the use of a soothing ointment, such as the boracic acid or zinc oxide, using lime liniment to wash the parts instead of water. Under this treatment, combined with rest, we will see our patient rapidly cured.

Eczema of the anus will rapidly improve if the fissures are touched twice a day with this solution, then dried gently with cotton and glycerite of lead application made. In nearly every form of acute eczema in the first and second stages the peroxide will give us the keenest satisfaction. The regular solution is diluted with two or more parts of water. Hydrogen peroxide is an excellent anti-pruritic and for this purpose it is widely used.

The hæmostatic value of this drug, as pointed out by Dr. Emerson Brewer, of New York, I can endorse. In operations on the nose and throat I have upon two occasions been enabled to check a persistent hemorrhage, when Monsel's solution and plugging had failed. At present I am in the habit of applying the full strength hydrogen peroxide after every operation on these parts. It is of special value after sawing out a deviated septum.

For flushing out a mammary abscess cavity this agent is invaluable.

Applied to the cervix uteri, adherent mucus is removed and our medications can be applied.

When it is inadvisable or impossible to make a complete opening of a fissure or abscess, irrigation with the peroxide will be found superior to all other antiseptics.

We have in peroxide of hydrogen a prompt, safe and efficient germicide. By its oxidizing power it rapidly decomposes pus, diphtheritic membranes, and other morbid putrifying material. It is a thorough deodorizer, and as a cleansing agent for foul wounds, abscesses, etc., it has no equal.

Of the different preparations of peroxide, Marchand's has been most uniformly satisfactory.

Since writing the foregoing paper my attention has been called to hydrozone, a stronger solution of peroxide of hydrogen, which for some months I have been using with much satisfaction.

Hypodermic Injections of Myrtol.—Dr. S. Artault de Vevey has frequently noted that injections of oil impregnated with eucalyptus are complained of by patients because they give rise to a smell of paint in the throat (*Ex.*). Since myrtol has been recommended by Gubler as a remedy for catarrhal discharge from the bronchial mucous membranes, and this drug, an isomer of eucalyptol, when used as above has a slight but agreeable odor, he has made use of it in simple catarrh with emphysema, abundant muco-purulent secretions, bronchial dilatation, and pulmonary gangrene, as a 10-per-cent. solution in sterilized olive oil. The dose is from one to two drachms each day, injected deeply into the buttocks. In case of tuberculosis with abundant expectoration an equal amount of guaiacol can be added. The odor of the latter drug is concealed, and thus combined the mixture is aromatic. No untoward results supervene, unless it be that with certain patients there is some nervous excitement and dull headache, which even happens when eucalyptol is used. The drug is eliminated rather by the pulmonary area than by the kidneys, and also by the skin, giving an odor to the body-linen.

The Treatment of Cerebro-spinal Meningitis with Hot Baths.—Influenced by the successful results reported from the employment of hot baths in the treatment of cerebro-spinal meningitis, Wolisch (*Therapeutische Monatshefte*) was led to employ this measure in seven cases of epidemic type in children between five and ten years of age. Perfect recovery ensued in five, and two terminated fatally (*Med. News*). Of the latter, one was fulminating in character, and in the other the treatment was only imperfectly and inadequately applied. While the number of cases is too small to base a final opinion upon, the impression gained from observation of the cases was that the treatment had a favorably modifying influence upon the course of the disease. The patient is carefully placed in water at a temperature between 90.5° and 92.8° F., and hot water is gradually added until the temperature reaches 104° F., an ice-bag or Leiter's coil being applied to the head.

The Preparation of Antituberculous Serum and Antitoxin.—Maragliano (*Il Policlinico*) describes his method of preparing antituberculous serum. One series (A) is obtained by concentrating the tuberculous material at 100° C.; the other (B) by filtration through a Cumberland filter at a temperature under 30° C. Series A contains the bacterio-proteins, the tuberculin; Series B, bacterial secretions—that is, toxalbumins, and a small quantity of tuberculin. The toxalbumins contain principles which have a sudoriparous and hypothermal action, but which can not be separately isolated. For inoculation the author uses a mixture of the two series, in the proportion of three parts of A and one part of B. The initial dose is two milligrams per kilogram, increasing daily up to forty to fifty. The horse gave the best results, and, usually required six months' treatment to give a good quantity of antitoxin. The antituberculous power of this antitoxin is even shown for guinea-pigs and men. The minimum quantity of tuberculin capable of giving rise to fever in an apyretic tuberculous subject is neutralized by one c.cm. of the serum. Tuberculous subjects susceptible to tuberculin lose this susceptibility after a series of serum injections, even when given in ten times larger doses. *In vitro* the serum is bactericidal with regard to the tubercle bacillus; one c.cm. of the serum protects one kilogram of healthy guinea-pig from doses of protein which would otherwise be surely fatal, and this is taken as a standard serum.

Local Treatment in Gout.—Dr. William Murrell writes to the *Lancet* of a local method of treating the acute manifestation of this affection which he has employed with success: "I will give the formula in full. I take half an ounce of iodide of potassium, dissolve it in half a pint of rectified spirit—methylated spirit is used in hospital practice—add one ounce of soap liniment, and then half a drachm each of oil of cajeput and oil of cloves. A piece of lint is soaked in this mixture, wrapped around the affected part, covered with protective, and kept in place by a bandage. It acts as a powerful counter-irritant, and the inflammation usually subsides in from twelve to twenty-four hours. In addition, I not uncommonly give a drachm of colchicum wine with ten grains of iodide of potassium three times a day. These large doses of colchicum wine induce brisk purgation, sometimes accompanied by vomiting, but they speedily cut short the attack.

This mode of treatment is especially useful in the case of robust, full-bodied men in active employment, to whom the loss of a day's work is a serious consideration. In sciatica, lumbago, and rheumatism affecting one joint, the local application of a liniment containing half-an-ounce of salicylate of sodium, half-a-drachm of oil of cajeput, fifteen minims of oil of eucalyptus, and half-an-ounce of soap-liniment, in six ounces of rectified spirit, affords prompt relief."

Guaiacum in Gouty Conditions.—Sir Alfred Garrod, writes the London correspondent of the *Therapeutic Gazette*, at a recent meeting of the Royal Medical and Chirurgical Society, stated that he thought he had been successful in establishing the following points in regard to the action of guaiacum: (1) Guaiacum is innocuous, and may be taken for an indefinite period of time, and looked upon as a condiment rather than as a drug, as harmless as ginger or any other condiment. (2) Guaiacum possesses a considerable power, but less than colchicum, in directly relieving patients suffering from gouty inflammation of any part; it may be given whenever there is but little fever. (3) Guaiacum, taken in the intervals of gouty attacks, has a considerable power of averting their occurrence; in fact, it is a very powerful prophylactic. (4) Guaiacum does not seem to lose its prophylactic power by long-continued use. (5) There are few persons who cannot readily continue the use of guaiacum; for such cases there are other drugs whose prophylactic action is in some respects similar; perhaps serpentary is one of the most powerful of these.

Eucaine.—Berger (*Revue de Thérap.*) has employed this drug clinically, and thinks it is a useful substitute for cocaine. It is but little soluble in water; but the hydrochlorate can be dissolved in water to the extent of 6 per cent. It is not so toxic as cocaine, while its anesthetic effect is fully equal to that of the latter; but whereas cocaine produces local anemia, eucaine produces local hyperemia; applied to the cornea it does not tend to produce desquamation of the superficial epithelium, which cocaine does; and it has the further advantage of not affecting the pupil or accommodation. A 1-per-cent. solution applied to the eye causes some pricking. Anesthesia occurs in a few minutes; the hyperemia of the conjunctiva lasts for half an hour after the

anesthesia passes off. The solutions of eucaine are very stable (Vinci), and so can be easily sterilized.

Sublimate Injections in Pernicious Anemia.—Paterna (*Rif. Med.*) reports the case of a lady, aged 33, seen by him in January, 1895, with a history of severe anemia, fever, vomiting, insomnia, and extreme debility of a year's duration, and attributed to severe uterine hemorrhage in the early part of 1894. The usual remedies were tried, but with very little success. The red blood corpuscles were very much diminished in number. There was no albuminuria and no hematuria. Some blood was vomited on one or two occasions. Temporary improvement followed the author's treatment, but when next seen, in December, 1895, the patient reported herself no better. Daily injections of 5 mg. of sublimate were then practiced for the space of two months, with excellent results. The anemia disappeared, and the patient radically improved, put on flesh, lost her palpitation, giddiness and sense of fatigue, and felt well in every way. The author refers to another case of severe anemia successfully treated in the same manner. It raises the question whether pernicious anemia may not be due to some hitherto undiscovered germ which is killed by the germicidal action of the sublimate.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Pathology of Pigment-Anomalies of the Skin.—Orlandi (*Monatshefte für Derm.*) describes several cases, and makes the observation concerning the pathogenesis of these affections that they are connected with the sympathetic, not with the entire sympathetic, but with the fibres which are prominent in governing pigmentation. From the observation that vitiligo is incurable, and that chloasma on the other hand sometimes passes away spontaneously, the writer questions if there may not be an alteration of the involved sympathetic fibres in the former and merely an irritation in the latter.

Leucocytosis in Diphtheria.—Schlesinger (*Archiv. f. Kinderheilkunde*) has examined the blood in twenty-four children suffering from diphtheria, with a view to determining the effects of antitoxic serum. In twenty-one of these cases, when examined before the injections, he found a manifest hyperleucocytosis, the degree of which varied between 1 to 71 and

1 to 275. This leucocytosis was not in relation with either the age of the child or the elevation of temperature presented at the moment of the examination; the influence of the gravity of the affection upon the leucocytosis was not constant, but in general the degree of hyperleucocytosis was more marked the graver the case. It was also observed that hyperleucocytosis diminished as the case proceeded to recovery, but persisted in the cases terminating in death (*Am. Jour. Med. Sc.*).

The influence of an injection of serum was manifested at first by a diminution of hyperleucocytosis, followed at the end of some time by an increase in the number of leucocytes, which did not always attain the degree observed before the injection.

Morvan's Disease and its Relation to Syringomyelia and Leprosy.—Prus (*Archiv für Psychiatrie*) reports the following: A Galician Jewess, forty-six years old, began to feel pain in the right arm and weakness in the right shoulder. Then perforating ulcers formed in the region of the left internal and right external malleolus, followed by painless whitlows on the fingers. Later, anæsthesia of the finger-tips, paræsthesia and pain in the neck and arms, anæsthesia of the tongue, loss of teeth, and difficulty in speaking appeared. Atrophy of the phalanges, ankylosis of the phalangeal joints of the toes, of the carpus and elbow came next; the fingers were greatly deformed; walking became difficult. Among the other symptoms present at the time of the report, eight years after the onset, were white spots on the skin of the hand, atrophy of the nails and various muscles, with reaction of degeneration, disturbance of sensation, vasomotor anomalies, and diminution of the skin and tendon-reflexes. By a very complete process of exclusion, described in full in the original, a diagnosis of Morvan's disease was made (*Am. Jour. Med. Sc.*).

Examination of the blood disclosed, in addition to anæmia and leucocytosis, bacilli which had all the characteristics of lepra bacilli, and, as miliary tuberculosis was evidently not present, a diagnosis of leprosy was made.

Prus, therefore, takes sides with those who deny the existence of Morvan's disease as a distinct process and see in it merely a form of anæsthetic and mutilating leprosy. According to the author, too, many cases of syringo-myelia belong to the same

category. His explanation of the process is as follows: After the lepra bacilli have penetrated the skin deeply they develop in the sheaths of the cutaneous nerves and cause degeneration of the fibres. From this various trophic disorders and alterations of sensation may occur. Later the bacilli affect the larger nerve-trunks, so causing paresis and muscular atrophy. If the spinal cord is reached, the bacilli develop in the neuroglia, especially in the gray matter, causing growths of the glia with subsequent retraction, whereby cavities are formed. It is possible that other things besides leprosy can cause such processes in the cord, but only the bacteriological examination can decide in any given case.

Histological Anomalies in the Brains of Epileptics and Born Criminals (Preliminary Communication).—Roucaroni (*Centblt. f. Nervenhe. und Psych.*) employed a slight modification of Nissl's stain, and the frontal lobes only were examined. In the normal brain cortex he distinguishes six layers, the second layer of Meynert's classification being divided into two.

Of eighteen epileptics examined there were structural changes in fifteen. These lesions consisted in absence or rudimentary presence of the deep granular layer, and a paucity of cells in the superficial granular layer. The type of cell was abnormal. (*Am. Med.-Surg. Bull.*). There was too great a preponderance of the large pyramidal and polymorphous cell, and the giant pyramidal cells were increased in number. The nerve-cells in the white matter were more numerous than in normal brains.

Similar changes were found in the brains of habitual criminals; in accidental criminals the lesions were less constant. No changes were found in eight insane brains (cretinism, pellagra, secondary dementia, general paresis), with the exception of that of a cretin, which showed similar changes to those observed in epilepsy.

Congenital Chorda Tendinea in the Aorta.—Dr. Röhrle (*Deutsche medicinische Wochenschrift*), in the post-mortem examination of a child that had died of ileo-colitis at the age of two weeks, recently found a tense tendinous cord in the aorta. It arose from the junction of the left end of the left semilunar valve and the left end of the posterior semilunar valve, and extended to the junction of the left end of the right semilunar valve and the other end of the left semilunar valve. The reporter

remarks that such an anomaly does not seem to have been described before.

The Cholera Bacillus in Subjects Apparently Healthy.

—The Cairo, Egypt, letter to the *London Lancet*, July 4th, contains reference to several cases of the presence of cholera bacilli in apparently healthy people. The communication is probably from the pen of Dr. Armand Ruffer, who went from England to become the chief bacteriologist to the sanitary office of the Egyptian Government. The writer makes the following statement: "It was during the Hamburg epidemic that German observers pointed out that a man apparently well and at his usual vocations might yet contain the comma bacilli in his intestines and be a potent means for spreading the disease. Several cases confirmatory to this have been seen in Cairo this month, and there are now two men in one of the cholera hospitals who were sent there on suspicion from different villages, because each of them was seen to vomit once by a native medical man searching for cholera. They both looked extremely well, and complained bitterly at having been brought to the hospital among a lot of dying folk. Both denied all diarrhea and previous vomiting, but the stools showed unmistakable bacilli, and continued in both cases to show them a week after admission to hospital. There are many things yet to be learned about this fell disease." (*Med. News*).

Osteomyelitis Six Years after Enteric Fever Due to Eberth's Bacillus.—Bruni (*Annales de l'Institut Pasteur*) records the case of a woman, aged thirty-six, who, after passing through an attack of typhoid fever, had an attack of periostitis in the lower third of the right femur. At the same time there was some pain in the upper third of the left leg. This passed away, but at intervals returned, and for some years she was subject to attacks of dull pain, worse at night. Eventually the leg became swollen, tender, and the skin over it inflamed, and six years after the attack of enteric fever the tibia was trephined in the situation of greatest tenderness, and an abscess was opened. Bacteriological examinations of the pus showed the presence of Eberth's bacillus typhosus. Great care was taken to differentiate the bacterium coli commune from the micro-organism found in the pus. The indol reaction was negative. The bacillus found

did not coagulate milk even after months, whereas the bacterium *coli commune* did in thirty hours. Elsner's differential tests by cultivations in various media were employed, and an adaptation of Pfeiffer's phenomenon, that is, injecting the micro-organism with antityphoid serum into the peritoneal cavity of an animal, also showed the micro-organism to be Eberth's bacillus. Experimentally the microbe was found not to possess a high degree of virulence, which is quite conformable with the fact that it had remained latent in the left tibia for a period of six years, and had given rise to an apyrexial chronic osteomyelitis resembling that due to the tuberculous process.

Five Months Fetus Developed in the Abdomen of a Young Man.—A strange case was reported at the meeting of the Académie de Médecine, May 5. A young man was operated upon for what was supposed to be a large abdominal tumor. It proved, however, to be a dermoid cyst, containing a female fetus as large as is usual at five months. The ovum in the cyst had probably lain latent until puberty or some traumatism had started it to grow. The young man did not long survive the operation, and died ignorant of the existence of a little sister in his supposed tumor.

Tuberculosis in Goats.—Bulling (*Munch. med. Woch.*) records a case of pulmonary tuberculosis in a goat. Both lungs were adherent, and large and small tuberculous foci were present. There was a development of fibrous tissue round these foci; the other organs were healthy. The goat was 6 years old, and had given birth to an apparently healthy kid a year previously. It had never coughed when in the stable, but did so when driven to town, so that customers could obtain the milk warm. Goat milk is generally consumed uncooked by sickly children and adults, that is, by individuals predisposed to tubercle. Possibly the hitherto accepted view, that goats are immune against tubercle, is not altogether correct. Goats are generally killed by their possessors, the carcasses thus escaping inspection. The author concludes that it would be well to examine into the possibility of the transmission of tubercle through the agency of goats, and only to consume the milk after boiling, or after the goat had been shown to be free from tubercle by the absence of reaction after the injection of tuberculin.

DISEASES OF WOMEN AND CHILDREN.

Case of Scurvy in an Infant.—W. F. Cheney reports a case in the *Medical News*. The patient was a female infant, ten months old, who had been fed artificially from birth. Many foods were tried in succession, most of them having been given without the addition of milk. Swelling of the right thigh was noticed about three weeks before the first visit. Physical examination showed that the infant was pale, poorly nourished, cachectic; complexion fair, eyes blue, hair light, the body much emaciated. There was slight enlargement of the post-cervical glands, a marked rachitic rosary, box-shaped chest, and widely open anterior fontanel. Several small spots of ecchymosis were observed on the gum of the lower jaw on the left side. There was swelling of the right thigh from hip to knee, greatest about the middle, with slight enlargement also below the knee in the upper third of the leg. The skin over the swelling was very tense, and no fluctuation could be made out. Some pitting of the subcutaneous tissues was observed on pressure. There was no redness of the surface or increased heat in the part, but the limb was apparently painful when handled. The infant made no effort to move the member. The greatest circumference of the right thigh was $9\frac{1}{2}$ inches; of the left thigh, 7 inches. Percussion and auscultation showed heart and lungs normal. A diet consisting of cow's milk and oatmeal water, together with beef juice and orange juice, was ordered. Recovery without medicine was complete and fairly rapid.

Treatment of Placenta Previa.—Baumm (*Centralbl. f. Gynäkol.*) recommends external version in placenta previa, that, the presentation being converted into a pelvic one, the hæmorrhage may be arrested by drawing down and keeping up traction on a foot. The version is generally possible, as the placenta prevents the early engagement of the head; after it has been performed, if the os is not sufficiently dilated to admit two fingers, one must, when bleeding begins, apply a tampon and wait; if the genitals are relaxed, it is generally easy, even without an anæsthetic, to bring down a foot and by moderate and steady traction to deliver the woman without further loss of blood. If the bleeding be severe and alarming, it is better to employ combined podalic version at once, or to apply a tampon before attempting external version.

Fibromyoma in a Child Aged Nine.—Sasaki (*Sei-i-Kwai*) states that Professor Saneyoshi, of Tokyo, operated last November on a little girl, aged nine, whose abdomen was extremely distended by tumors, which had been growing for several years. Three were very prominent, with depressions of the integument between them. They felt smooth and elastic. On opening the abdomen a large solid tumor was exposed, then several others came into view. They were loosely fixed to the adjacent parts by a thin covering membrane, so that they were readily removed by manipulation; the largest lay in the right iliac fossa, some were detected close to the liver and in the left hypochondriac region. All were subperitoneal. The patient suffered severely from shock, and died half an hour after the operation. Twenty-one tumors were removed. The biggest measured 14 inches by 8, the smallest was not quite an inch long in diameter. They were composed of dense fibrous tissue containing some non-striated muscular fibres.

Menorrhagia in Virgins.—Laroyenne (*Lyon Méd.*) distinguishes the majority of cases of profuse menstruation in young girls which require no local treatment from a minority in which the use of the curette is advisable. If after long attention to hygiene and a course of suitable tonics menorrhagia persists, interrupted by occasional amenorrhea, granular or fungous endometritis probably exists. This disease is yet more safely diagnosed when the patient has been perfectly healthy and quite free from anemia before profuse menorrhagia appeared, and equally free from evidence of diseased appendages after the local symptoms become marked. When the excessive menstruation causes debility, it is right to dilate and use the curette. A single application (immediately after the scraping) of cotton-wool soaked in equal parts of water and chloride of zinc is sufficient. Repeated cauterizations may easily cause atresia.

SURGERY.

Treatment of Fracture of the Patella with Continuous Extension and without Confinement to Bed.—Bryant describes, in the *Medical Record*, the following method of treating recent fractures of the patella, which he has found satisfactory in thirteen cases. The plan is presented, the author says, not as

a substitute for operative measures, but as an adjunct to them, as the patient can with this appliance be about without special danger or discomfort after wiring, etc.

A plaster-of-paris cast is applied to the leg, beginning at the base of the toes, and extending up to and partly embracing the lower fragment of the patella, and allowed to dry. An ordinary Buck's extension is next applied to the thigh. The adhesive plaster extends from the perineum to the upper border of the upper fragment, and terminates in a loop at either side of the limb a little below the knee. After the plaster has become firmly adherent gentle traction is made by attaching elastic cords, which pass under the sole of the foot to the loops on either side of the knee, and a plaster-of-paris cast is applied to the thigh, reaching to the upper limit of the adhesive plaster down to the upper fragment, where the plaster is so fashioned and padded as to hold it as nearly as possible in contact with its fellow. A posterior support or splint is then applied, and secured with a plaster-of-paris bandage. The final step consists in drawing together the fragments of the patella as firmly as possible, either with adhesive strips obliquely applied, or by means of a knee-cap suitably constructed.

After the apparatus is comfortably in position the patient is permitted to walk about with the aid of crutches, the limb being kept in an advanced position, however, by a sling carried beneath the sole of the foot and around the neck of the patient.

New Method of Anastomosis Without Opening Organs.

—Souligoux unites the stomach to the intestines, or one part of the intestines to another, or the gall-bladder to the intestines, without opening into the organs, by creating artificially a process similar to the pathologic process in tuberculosis or cancer when a communication is established between organs (*Jour. Am. Med. Assn.*). This is accomplished by seizing and squeezing a piece of the intestine in a clamp forceps; when released, this piece is reduced to a thin transparent membrane no thicker than a piece of cigarette paper, about 4 cm. long by 2 to 3 wide. A similar part of the other organ is crushed to correspond, and the two bruised portions are then united and one long edge sutured. The crushed surfaces are then lightly cauterized with potassa, the assistant instantly sponging off any liquid that exudes. The

rest of the suture is then completed, and if any of the black produced by the caustic shows a separate suture is made to enclose it. The bruised walls give way very soon—in forty-eight hours at farthest—and communication is established, with the formation of adherences that strengthen the suture. Some of the Paris surgeons are enthusiastic in their praise of this new, “easy, certain and elegant” method of anastomosis, by which all the dangers of opening into vital organs are obviated. One necropsy showed perfect union, with only a small fragment of the bruised tissue still adhering. Reclus advises cocain instead of ether in these operations. Chaput has been experimenting with the thermo-cautery, which he prefers to the cold forceps for this purpose, and makes a row of separate sutures around the eschar. He also proposes a circular union, on this principle, by thermo-cauterizing the bunch formed by ligating the intestine, and then making a circular suture enclosing it. He has had perfect success on dogs. Raynier, very sensibly, doubts whether this will prove practicable, as it totally closes the intestines until the bruised portion breaks away.

The Surgical Treatment of Tumors of the Middle Cranial Fossa.—Krogius (*Rev. de Chir.*) reports an interesting case of tumor of the middle fossa of the cranium on the left side. The patient, a woman aged 34, had since November, 1892, suffered intense pain over the left side of the face. Three months later slight ptosis with myosis was observed on the same side. Towards the end of the spring the left side of the face became anesthetic. In the course of the following summer the external rectus of the left eye was attacked by paralysis, and in autumn the patient became deaf on the left side in consequence of compression of the Eustachian tube by a tumor projecting into the naso-pharyngeal cavity. From the end of the year 1892 up to the spring of 1895, when the patient came under the author's notice, the neuralgia of the face on the left side had gradually increased in intensity. The case was diagnosed as one of humor of the middle cranial fossa on the left side. In April of last year an operation was performed, which consisted in resection of the zygomatic arch and coronoid process, in trephining of the base of the cranium, and of the removal of an endotheliomatous tumor of the size of a pigeon's egg. A fungous protrusion

sion of the brain was noted on the sixth day after the date of operation. The patient progressed favorably until the twelfth day, when meningitis set in, which proved fatal within a few hours. The severity of the symptoms in this case justified, the author thinks, a serious operation. Even though the tumor might not, as was proved, have been capable of complete removal, the patient, if she had survived the surgical treatment, would have been relieved for the rest of her life from the great suffering caused by the neuralgic pains. The operation in this case, however, was, it is acknowledged, a very dangerous one. It was of prolonged duration, and nearly caused immediate death by collapse, which was averted by the administration of powerful stimulants and the intravenous injection of a solution of common salt. The result of the surgical treatment might, the author thinks, have been different in this case had the operation been practiced at an early stage of the disease, which had first presented definite symptoms about two-years-and-a-half before the attempt at removal of the tumor. As the trigeminus and the motor nerves of the eyeball are close neighbors, a tumor forming in the middle cranial fossa should manifest itself in a characteristic manner by associated disturbances of their functions: on the one hand, by neuralgia and anesthesia of the trigeminus, paralysis of the motor branches of this nerve, and trophic disturbance of the face; on the other hand, by paralysis of the muscles of the eyeball. These nerve troubles ought, the author holds, to be sufficient to furnish positive indications for the establishing of a local diagnosis.

Pericarditis by Open Incision. — Rullier (*Arch. de méd. et de pharm. Militaire*). A soldier suffered from pericarditis. Four times the pericardial cavity was tapped and the fluid withdrawn. After the fourth aspiration a solution of iodine was injected. The fluid reappeared as before. Rullier determined to treat it as a hydrocele would be treated under similar circumstances. Under cocaine anesthesia, an incision was made in the fourth intercostal space, and the pericardium opened and drained. The following day the serous secretion was profuse, but it rapidly diminished, and the pericardial wound had closed by the fourth day. Recovery was delayed by a left-sided broncho-pneumonia, but was eventually completed (*Med. News*).

At a meeting of the section in medicine of the Royal Academy (Ireland), Dr. O'Carroll (*Lancet*, May 23, 1896) read an account of a case of suppurative pericarditis secondary to pneumonia, which had been treated by free and constant drainage. The pericardial cavity contained less and less pus, but the patient died from asthenia two months afterward. The walls of the pericardial cavity were found to be adherent everywhere but in front, where there was about a drachm of pus. The puncture was made in the fourth space, a thumb's breadth internal to the line of the nipple.

GENITO-URINARY SURGERY.

The Silk Ligature in Urethral Stricture.—Dr. Thomas, in operating upon a case of urethral stricture, met with a difficulty somewhat out of the ordinary. The case was one of urinary fistula—the fistula opening upon the left side of the scrotum and due to the stricture. Beginning two inches from the meatus, and involving the urethra from this point backward for a distance of another inch, was a stricture that would admit of nothing larger than a filiform (“a filiform stricture”). After the filiform was passed through this and into the bladder an opening was made in the perineum. An effort was now made to pass a tunneled Maison-neuve urethratome (No. 6 F.) over the filiform in order to cut the anterior stricture internally; but the stricture tissue was found so rigid that the shaft of the urethratome could not be made to enter the lumen of the stricture with ordinary pressure. As a *dernier ressort* an attempt was then made to divulse the stricture by pushing the instrument with sufficient force to accomplish the object in view; but this proved a failure, for, instead of the Maissonneuve entering the stricture the penis (rather a small one) was simply crowded backward into the perineum. The filiform was now withdrawn, and after the removal of the tunneled tip from the urethratome the regular screw guide was attached, thus giving the entering part of the instrument more of the wedge form, but with this change no better success was met with. This instrument was again removed, a filiform passed and the smallest tunneled instrument in our possession used, hoping to divulsé or dilate sufficiently to allow the cutting instrument to pass. This again was a failure. It now suggested itself to me

that to pass a silk ligature through the urethra the stricture might be sawed (Abbé's method for the esophagus) sufficiently to permit the urethratome to pass. This proved a success, and was accomplished by tying a small-sized ligature around the bulbous end of the filiform, already in the urethra, and drawing the filiform with the thread out through the perineal opening. This left one end of the string projecting from the meatus, the other from the perineal wound, and by taking hold of these two ends and resorting to a sawing motion while an assistant made pressure on the under surface of the penis at the location of the stricture, we were soon able to secure sufficient room for the introduction of the Maissoneuve urethratome. The ligature was threaded through the tunneled end of the urethratome and utilized as a guide.

When May Gonorrheics Marry? — Lowenhardt (*Journal des Connaissances Médicales*) gives some rules to be observed by physicians consulted by blenorrhagics to gain medical consent to marry.

Since the virulence of the urethral discharge intimately depends upon the presence of the gonococcus, the candidate for marriage should be subjected to numerous bacteriological examinations, carried out separately on the secretion of the anterior and the posterior urethra. A slight secretion is not sufficient for this purpose, but the urethral mucosa must be irritated in such a manner as to place it in analogous conditions to those (excess in *Baccho et Venere*) which light up an indolent process. The best means of obtaining this result is by injecting a few drops of a five per cent. solution of silver nitrate into the urethra; if then the discharge thus sent up contains no gonococci, but is entirely made up of masses of epithelial cells, marriage can be permitted. The presence of the numerous pus corpuscles necessitates renewed examinations and energetic treatment of this pseudo-gonorrhea.

Lowenhardt insists upon the recognition of the fact that the gonococcus is alone responsible for the virulence of the exudate, and the serious complications observed in the genital apparatus of women.

Another rather popular method of provoking a urethral discharge in order to establish the verity of a cure, is to give an

injection of a $\frac{1}{1000}$ bichloride solution, and to instruct the patient to drink a quart or more of beer. This would seem to be more heroic than the circumstances would warrant. In spite of failure to find gonococci in the urethral discharge after repeated examinations, it is better to wait until the discharge has ceased entirely, and to withhold consent to marry until there can be no peradventure of contagion.

The extreme views of Næggerath and Tait on the incurability of gonorrhea in the male are too often and too clearly refuted by practical experience to merit serious consideration. Latent gonorrhea in the etymological restriction of the adjective to lying hid, has no existence. If the disease exists, it can always be discovered. This fact removes that bugbear over which so many gynecologists have worked themselves into a fine frenzy.

Strangulation of the Penis by an Iron Screw-Nut.—Weinslichner reported to the Vienna Medical Society the case of a boy of 14, who, having passed his penis through the lumen of a screw-nut two days before admission, had been unable to withdraw it. The peripheral portion was much swollen, and the foreskin very edematous, but micturition was not arrested. The hexagonal nut was 3.2 cm. in diameter by 2.3 in thickness; the lumen was nearly 2 c.m. across. His father had tried to remove it with a file. Four greased strips of linen were passed through the nut on four sides of the hexagon, and by traction on these while the central end of the organ was kept steady the nut was drawn off. The excoriation and swelling soon disappeared. A similar case was admitted to the St. Louis City Hospital a few years ago; the nut being somewhat larger and patient being a young man it was necessary to remove it with a file.

G. J. L.

NEUROLOGY.

The Proof of Insanity.—Frank T. Lodge contributes a paper to the *Physician and Surgeon* on insanity, in its relations to crimes, contracts and wills, inclusive of the spirit of the laws of his State as to the proof of mental alienation. On the latter branch of his subject he writes (*Journal American Medical Association*): In nearly every case where insanity is set up

physicians are called as witnesses. The law does not recognize expert testimony in these cases as being of any greater value than that of ordinary persons. The credibility of each person's testimony, be it layman or doctor, is to be weighed and determined by the jury. Nevertheless, if the testimony of a physician, called as an expert witness, is properly given, it must and should have great weight with the jury. As a rule, the physician will be called to testify with reference to the particular person whose sanity is under consideration. His testimony should be based upon a previous examination. The subtle essence of the mind cannot be subjected to ocular and visual examination. Its quality must be determined from close observation of the acts and conversation of its owner. Most physicians testify from a short conversation with the person, and we all know how unsatisfactory such an examination is. Nervous persons of perfectly sound mind may appear almost insane under certain conditions, while the wildest lunatic frequently converses for hours rationally and intelligently. In many cases it is only when his particular hobby happens to be touched upon that he manifests his mental bias, and in the absence of previous knowledge how can the examiner know toward what point to direct his inquiry? In my opinion, the sanity of no person should be decided until he has been under close observation by competent physicians for a considerable period, say from one to two months, under all the circumstances most favorable to the examination. The examiner should be furnished with the life history of the patient, the history of his family for the preceding two or three generations, the mental condition of his ancestors with relation to possible hereditary taints, and the many other details which will readily occur to all of you. Without this opportunity for a careful and thorough examination, there will always be abundant opportunity for punishing innocent persons for crime, for setting clever and unscrupulous scoundrels at large, and for depriving imbecile and incapable persons of large property interests by the clever machinations of designing villains.

Neuritis Complicating Dislocations of the Shoulder and Elbows.—Velder (*Trans. Med. Soc. of the State of New York*) points out that in dislocation of the humerus the head of the bone is very liable to press on the nerves of the brachial

plexus, and that in like manner the ulnar and median nerves may become involved in dislocations of the elbow. The symptoms caused by such pressure may present varying characteristics according as the trophic, motor, or sensory filaments of the nerve are chiefly affected. The results of the nerve injury may persist for a long time after the restoration of the joint, or the full effect of the nerve lesion may not appear until after many months. In dealing with a dislocation the surgeon should recall to mind the anatomical relations of the parts, so as to avoid every manifestation that might increase the injury of the nerve trunks pressed upon by the displaced bone. In dislocation at the shoulder, if the elbow be pulled directly outwards from the side of the body, the humerus will act as a powerful lever, the fulcrum being at the point of contact with the scapula or clavicle, and increased tension being exerted in the very direction in which the axillary nerves are already stretched. In the great majority of cases the nerve injury caused by dislocation is not serious. The graver and more persistent forms are usually due to a too active and early use of the limb after a dislocation. Stiffness of the joint, which may be readily treated with good results, is regarded as a lesser evil than deprivation of nerve supply.

MEDICO-LEGAL.

An Action for Malpractice Against a Physician, a Waiver of the Benefits of the Statute Privileging Confidential Communications.—Lorenzo D. Bulette, Esq., of the Philadelphia bar, says the privilege conferred by the statutes freeing from disclosure the information imparted by a patient to his physician, necessary for his treatment, is for the benefit of the patient only, and not for the physician. Such privileges may, however, be waived by the patient, either in express terms or impliedly by a course of conduct, which the courts, in construing these statutes of privilege, have declared to amount to a waiver. And it has accordingly been decided that in bringing an action for malpractice against his physician, the patient forfeits his right to have the secrets of the sick-room preserved inviolate in such judicial proceeding (*Int. Jour. Surg.*).

In a former case the Supreme Court had said: "If a patient makes public in a court of justice the occurrences of the sick-room for the purpose of obtaining a judgment for damages against

his physician, he cannot shut out the physician himself nor any other who was present at the time covered by the testimony. When the patient voluntarily publishes the occurrence, he cannot be heard to assert that the confidence which the statute was intended to maintain inviolate continues to exist. By his voluntary act he breaks down the barriers, and the professional duty of secrecy ceases. It would be monstrous if the patient himself might detail all that occurred, and yet compel the physician to remain silent. The principle is the same whether the physician called is a consulting physician or is the defendant. The opening of the matter to investigation removed the obligation of secrecy as to all, not merely as to one. When the obligation to silence is broken it is broken for the defendant as well as for the plaintiff. As to all witnesses of the transaction it is fully opened to investigation, if opened at all, by the party having a right to keep it closed. A patient cannot elect what witnesses shall be heard and what shall not; for if once investigation legitimately begins it continues to the end. A patient may enforce secrecy if he chooses, but where he himself removes the obligation he cannot avail himself of the statute to exclude witnesses to the occurrence."

Sexual Inversion.—In concluding a very energetic article on the subject of sexual inversion, Mr. Havelock Ellis concludes as follows (*Bulletin New York Medico-Legal Society*): Sexual inversion, therefore, remains a congenital abnormality, frequently but not necessarily related to the states that may fairly be called degenerative. At the very least, such congenital abnormality constitutes a predisposition. We still have to recognize that exciting causes may exercise a large part in the development of a latent predisposition. It is probable that many persons go through the world with a predisposition to inversion which always remains latent; in others the instinct forces itself through all obstacles; in others again some exciting cause plays a pre-dominant part in arousing the latent instinct.

A great variety of exciting causes have been brought forward in connection with inversion—I have only found them operative—disappointment in normal love, example (usually at school), and seduction by an older person. Whether any of these causes can be effectual without a predisposition is a difficult question,

complicated for discussion now. In most cases I have reason to believe that there is some predisposition present. This is, indeed, what we should expect in a broad view of the matter. "He can only be seduced," as Moll puts it, "who is capable of being seduced." A large number of individuals are exposed to these influences, but only a few succumb, even temporarily; the majority merely experiencing disgust.

The average invert, moving in ordinary society, is usually the subject of a congenital predisposing abnormality, or complexus of minor abnormalities, which make it difficult or impossible for him to feel sexual attraction to the opposite sex, and easy to feel sexual attraction to his own sex. This abnormality either develops spontaneously from the first or it is called into activity by some accidental circumstance.

I do not now propose to consider what the attitude of society and the law should be toward the person I have here described. How far should we regard him as a deformed person to be medically treated? How far as an anti-social person to be punished or restrained? These are important questions, so important that many of us are inclined to rush to a conclusion concerning them without any clear idea as to what sexual inversion is. Before we decide what to do with the sexual invert we must know something about him and we must attain to some general agreement.

ORTHOPEDIC SURGERY.

Early Treatment of White Swelling of the Knee.—Bilhaut (*Ann. d'Orthop.*) does not think that all cases of white swelling are due to the tubercle bacillus alone—other micro-organisms may be present; nor does he believe that all these cases involve the bone. The disease may begin in the skin, and spread through the lymphatics, and invade the synovial membrane; it may be limited to that, or the soft parts, without attacking the bone. In other cases the bacilli invade the diaphysis of a long bone, causing destruction in the neighborhood of the epiphysis, but the cartilage acts as a barrier, so that the articular surface may be found healthy at the operation. After suppuration has occurred the bone will be found involved.

The shock of the operation, arthrectomy, may be avoided by careful hemostasis, and by previous superalimentation, serum injections, and hygienic measures.

Some statistics on the subject of the generalization of the tubercular process, after operation, appeared about a year ago in the Archives of the Society of Belgian Surgeons. The number of cases in which this occurred did not differ much whether they were treated conservatively or were subjected to operative interference, as arthrectomy, resection, incision, and curretting of abscess.

The only time for conservative treatment is at the very onset, as soon as the diagnosis is made. If the treatment is delayed until deformity appears, the very efforts made to reduce this may injure the joint, causing swelling, pain, and often abscess, since no matter what means are employed, the adhesions will have to be broken up and the fragile fungosities injured.

Bilhaut recommends continuous extension and perfect immobilization at the onset, and has had thus excellent success. This treatment requires a long time, however, and a relapse may occur even after a long time, and in these cases the first result is often much impaired.

The surgeon often first sees the patient late in the disease. Bilhaut advises arthrectomy wherever possible, opening the joint by so free an incision that anything necessary can be done and a careful dissection made of all the diseased tissue, and all bone foci curretted. Early operations will be less extensive naturally than late ones, and bone growth will be less interfered with. The social condition of the child will require sometimes that as little time should be occupied in the treatment as possible; and Bilhaut believes surgical measures can assure one of a rapid cure, and that the results obtained are superior to spontaneous ankylosis, and he is himself a partisan of early surgical intervention. He believes the sclerogenous method and ignipuncture are unreliable.

OPHTHALMOLOGY.

Scopolamine as a Mydriatic.—Dr. Arthur G. Hobbs states (*Jour. Pract. Med.*) that this drug occupies a middle ground between atropine, which is known to produce a complete paralysis of the accommodation and retain its effects for a week or ten days, and homatropine, which is claimed by some, and denied by others, to effect a complete control of the accommodation muscles and retain its effect for about forty-eight hours. In the

first case the time necessary to accomplish a full paralysis ranges from two and a half to three and a half days, and in the second ninety minutes to two hours, according to its advocates. If a $\frac{1}{20}$ per cent. solution of this drug be used, with intervals of fifteen minutes between the instillations, for one hour, the full effect is reached quite as completely as that produced by a three days' use of atropine. The paralysis lasts from one and a half to three days. In simple refraction cases it is to be preferred to the latter drug, because it does its work much more quickly, while its decline is at the most only about one-fifth, and oftener only one-sixth, of the time required by atropine. It produces no unpleasant effects in the throat, and if the patient can take but little time from his work, a solution of eserine (1:3840) can be used to reduce more rapidly the pupil. The drug is used in weak solution in cases of glaucoma with very small pupils, and in some cases of iritis when atropine failed to produce sufficient dilation of the pupils. It is used most frequently in a $\frac{1}{40}$ per cent. solution, rarely for some special reason (history of a former resistance) as a strong $\frac{1}{10}$ per cent. It produces no increase of tension, and hence the old eye, even if it be glaucomatous, does not restrict its use, as in a greater or less degree it would in the use of other mydriatics.

Trachoma.—Chibret (*Société Française d'Ophth.*) sums up his conclusions on trachoma: 1. No micro-organism, not even coccidia, can be considered as pathognomonic of trachoma. 2. The different forms of trachoma are superficial, hard, warty granulations; soft granulations embedded in the conjunctival tissue; intermediate form between the above two, folliculitis, spring catarrh; but folliculitis and spring catarrh may be due to other causes of conjunctival irritation. 3. Race: The American Indians (Iroquois, Hurons, Mic-Macs, Chippewas, Cris, Santexx, etc.) never contract trachoma. The American negroes enjoy a relative immunity, also the Celtic race. The yellow races show a much greater liability to it than the white. 4. Insufficient food and bad hygienic conditions are favoring conditions; the lymphatic temperament and malarial infection are predisposing. A high mountain and a maritime climate may be protecting factors, but strong sunshine and heat neutralize their good effects.

DISEASES OF THE NOSE, THROAT AND EARS.

Cough.—Dr. Pearse (*Kas. City Med. Index*) classifies coughs as follows:

“It seems to me advisable to divide coughs into two general classes clinically. I have never seen such a classification in any text-book, yet I have found it helpful in practice, and so have submitted it here. My classification is:

1. Coughs that may safely be lessened, quieted or stopped by drugs.

2. Coughs that should be encouraged.

I.—MAY SAFELY BE RELIEVED BY DRUGS.

- | | | | | | |
|----------------------------|---|-------------------------------------|-------------|---|--------------------------|
| Acute. | { | 1. Dentition cough. | } Reflexes. | | |
| | | 2. Ear diseases and irritations. | | | |
| | | 3. Gastric and enteric irritations. | | | |
| | | 4. Malaria. | | | |
| | | 5. Nasal irritations. | | | |
| | | | { | 6. Whooping-cough. | } Neuroses. |
| | | | | 7. Croup, spasmodic. | |
| | | | { | 8. Croup, membranous. | } Inflammations. |
| | | | | 9. Pharyngitis. | |
| | | | { | 10. Pneumonia, <i>when dry</i> . | } Irritations. |
| | | | | 11. Pleurisy. | |
| | | | { | 12. Trachitis and bronchitis. | |
| | | | | 13. Weak heart. | |
| | | Chronic. | { | 14. Paroxysmal stage of asthma. | } Irritations. |
| 15. Organic heart lesions. | | | | | |
| | { | | | 16. Enlarged tonsil and post nasal growths. | } { varicose
adenoid. |
| | | | | 17. Evening and night coughs of phthisis. | |
| | { | | | 18. Evening and night coughs of chronic bronchitis. | |
| | | | | 19. Gastric or enteric irritations. | |
| 20. Lingual tonsil. | | | | | |

II.—SHOULD BE ENCOURAGED.

- | | | |
|----------|---|---|
| Acute. | { | 21. Broncho-pneumonia,
or capillary bronchitis. |
| | | 22. Lobar pneumonia if expectoration be in process. |
| Chronic. | { | 23. Morning cough of phthisis. |
| | | 24. Dilated bronchi. |
| | | 25. Chronic bronchitis (morning). |
| | | 26. Perforated abscess. |
| | | 27. Intra-paroxysmal asthma. |

"Each may be divided into acute and chronic conditions for the purpose of assisting in the direction of treatment; chronic cases requiring positively for their successful treatment a correct appreciation of the causes underlying the cough, while an acute case will frequently require nothing more than a mild sedative and a day in bed to complete its cure.

"The treatment in each of these last classifications will be medical or surgical; and while it may surprise some of my hearers to think of a surgical treatment for cough, yet some of the most brilliant results are to be so obtained."—*The Laryngoscope*.

The Nose as a Germ-Filter.—The experiments of St. Clair Thompson and R. T. Hierlett (*Medical Record*, June 6, 1896) emphasize the importance of having a healthy nose. Their researches show that, under very favorable conditions, the lowest number of organisms contained in the inhaled air of an hour was fifteen hundred; and that in a large city the air that passes through the nose in the same period is charged with from twelve to fifteen thousand. Tyndall has shown that the last portion of an expiration is free from impurities. Other authorities have demonstrated that the interior or normal nasal cavities is perfectly aseptic. The vibrissæ, which lined the vestibules of the nose, however, are usually well-laden with micro-organisms. This clearly proves that this portion of the respiratory tract acts as an excellent filter, and that a large number of bacteria meet destruction at this site. Furthermore, pathogenic organisms which have reached the interior of the nose are readily ejected. The following experiment substantiates the last remark: A pure culture of bacillus prodigiosus was placed upon the nasal septum, some distance from the vestibule. Cultures were made every few moments. Continual falling off of the growth in the culture-medium was observed, until at the end of two hours no growth of the bacillus could be detected.—*The Laryngoscope*.

The Use of Cold Water in Diseases of the Ear.—At a recent meeting of the Hungarian Otologists and Laryngologists (*Monatsch. f. Ohrenhklde*, xxix., 4), Dr. Boeke stated that he used ice bandages, or the Leiter's apparatus, in the following conditions of the ear:

1. In traumatic cases in which the external parts of the ear have suffered.

2. In inflammatory processes of the auricular canal, drum-membrane, tympanum or the mastoid process.

3. In chronic suppuration, when sensitiveness, pain or even œdema of the skin develops over the mastoid process.

To support the efficacy of this treatment, Dr. Boeke gives the clinical history of several cases: two of traumatism with cerebral symptoms, one case of chronic purulent otitis media, in which, after the use of creolin, there was an unconsciousness, stupor and high fever, and a case of suppurative inflammation of the tympanum complicated with facial paralysis. In all of these cases the result was excellent. Also in cases of grippal otitis media, especially in the early stages, in which the results are surprisingly successful.—*The Laryngoscope*. F. M. R.

Book Reviews.

A System of Surgery. By American Authors. Edited by FREDERIC S. DENNIS, M.D., assisted by JOHN S. BILLINGS, M.D., LL.D., D.C.L. Vol. IV. Imperial 8vo., pp. 970. 441 Engravings and 23 Plates. [Philadelphia: Lea Bros. & Co., 1896. Price per volume: cloth, \$6.00; leather, \$7.00; half morocco, gilt back and top, \$8.50.]

This fourth and concluding volume of Dennis's System of Surgery fitly rounds out a most colossal and able work. As we have had occasion to say in previous reviews of the different volumes, as a surgical work this one is *par excellence*, and we have no hesitation in declaring that not one of its many thousand subscribers will have reason to find fault with the work. The entire plan has been so well carried out, the details so conscientiously elaborated, and the editing so thoroughly done, that he must be a carping critic indeed who can detect faults worthy of the name in this System. It well deserves the name, for systematic work has been the key-note of its plan and the guide in executing it.

The present is one of the most interesting of the four volumes which have appeared, and fitly terminates the labors of the galaxy of capable surgeons who have contributed to its pages. A bare recital of the subjects treated of will show the valuable contributions which fill the volume. Roughly enumerated Vol. IV. contains monographs on tumors, hernia, the surgery of the alimentary canal, appendicitis, the surgery of the liver and biliary passages, of the uterus, of the ovaries and tubes, gynecological surgery, symphysiotomy, surgery of the thyroid, surgical peculiarities of the negro, surgery of the female breast, and the use of the Röntgen rays in surgery. This is indeed a surgical treat, which it would be impossible to find in any other volume published in the English language.

The editor writes a most capable article on that most difficult and obscure subject, tumors. In taking up onconymy and onco-taxy the author presents us a nomenclature and classification based mainly upon the origin and structural character of tumors, prepared by Dr. J. W. S. Gouley, and here published in advance. It is a most elaborate plan, which is thorough and scientific, although, no doubt, like every classification ever attempted, it will undergo modifications as our knowledge of the subject increases. The general subjects of the diagnosis and treatment of tumors are taken up, and then follows a consideration of special tumors. We desire to state that Dr. Dennis also treats of diseases of the female breast further on in the volume, and he takes in hand the tumors of the mammæ to quite a considerable degree, thus completing the consideration of tumors in a fitting manner.

Hernia is treated of in his usual masterly manner, by Dr. William T. Ball, who is deservedly regarded as one of our foremost surgeons. Appendicitis receives quite a large share of attention, Dr. Frank Hartley taking up the subject in general in a most detailed manner. Dr. Charles McBurney writes on the surgical treatment of appendicitis, and his contribution is a most thorough and searching one. He believes in palliative treatment, when such can be carried out, and is not inclined to believe that operative procedures are indicated in all cases.

The surgery of the alimentary canal, from the pharynx to the ileo-cecal valve, and from the latter to the anus, are the subjects of the articles of Drs. Maurice H. Richardson and Lewis S. Pilcher. This most extensive subject is ably handled by the authors. The surgical diseases of the female pelvic organs are ably handled by Drs. William M. Polk, Joseph Taber Johnson, and Henry C. Coe; whilst Dr. William T. Lusk takes up symphysiotomy and handles it in his well-known style.

The surgery of the thyroid-gland is well exposed by Dr. Robert F. Weir. He gives a detailed description of the method of operating on goitre, practiced by Kocher, who is regarded everywhere as possibly the best operator in this condition. The explanation and figures make the whole matter so clear, that those who have hitherto not thoroughly understood it have now no longer any excuse to advance for their lack of knowledge on this point.

One of the most interesting papers is that contributed by Dr. Rudolph Matas, on the surgical peculiarities of the negro. It is not only interesting from a purely surgical point of view, but anatomically as well, and as an interesting addition to anthropology it cannot be excelled.

The final article is written by one of the Nestors of American Surgery, Dr. W. W. Keen. It is a clear exposé of the principal points connected with our present knowledge of the use of the

Röntgen rays in surgery. It is to us a valuable index of the fact that the entire work has been kept up to date and that the latest advances in surgery have received proper and appropriate recognition.

We have on former occasions warmly recommended the whole work, and it is with pleasure that we not only reiterate our good opinion but would emphasize it more forcibly if that be possible. It is the best work on surgery published in English up to the present, and it will be a difficult or well-nigh impossible task to produce a better one for many years to come. The publishers have ably seconded the contributors in their efforts to produce a magnificent work. No money or labor has been spared to issue a magnificently illustrated, well-bound, and neatly printed set of books, the best of material only being used. We will not recommend it to surgeons, as they are all, doubtless, possessors of a copy of it. Those members of the medical profession who have not yet obtained it could not invest money in a better way or to more advantage.

A System of Medicine.—By Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A. Vol. I. Imperial 8vo.; pp 978. [New York: Macmillan & Co., 66 Fifth Ave. London: Macmillan & Co., Ltd., 1896. Price, \$5.00. For sale by J. L. Boland, St. Louis.

We have been anxiously awaiting the appearance of the first volume of this work, and now that we have had the privilege of examining it we are astounded at the completeness and thoroughness which it evinces. As the editor states in the preface, a system of medicine now-a-days can no longer be made dogmatic and compact. The advances made are such in magnitude that methods of verification must be submitted again and again in order to substantiate given statements. Etiology, pathology, and methods of investigation have improved so much and methods have multiplied to such an extent that the test of every contribution is indeed a herculean one.

In the volume before us we have a masterpiece indeed. We have read its pages with ever-increasing interest, and our interest never flagged one moment. As the title indicates, the work is composed of a series of monographs, and each one is the finished work of a distinguished member of the medical profession. We are certain that every one who has the opportunity of reading this first volume will not only carefully study each succeeding one, but will recommend it to all of his colleagues as well. It is a fascinating work to a medical man, and is withal replete with observations which reflect matured intellect and wide experience.

We wish that we had the space to devote to a complete critical analysis of this large work; but we can only notice an article here and there without prejudice, be it understood, to the other

contributors, who are able gentlemen and have fully and completely, as well as ably, done their share of the work. This volume is divided into two divisions. Division I. is devoted to certain prolegomena, in the highest degree interesting and of the greatest worth as preparatory to a fuller understanding of the great body of the work. This part takes up 490 pages, whereas division II., including fevers and the infections, occupies 471 pages. Among the interesting articles in division I. may be mentioned medical statistics by Dr. John S. Billings. He considers the subject from a critical and philosophical point of view, and dwells upon the lack of value of inadequate and improperly kept statistics. Dr. Beddoe contributes a more than ordinarily good article on "Anthropology and Medicine." He points out many of the peculiarities connected with disease which seem to depend upon racial differences. Our readers may still remember the remarkable essay of Mr. T. Hutchinson on "Heredity and Disease," published some years ago. In this volume he speaks of the Laws of Inheritance in Disease, and he discusses the subject in his well-known, thorough and lucid manner. Dr. Adams writes on Inflammation, Dr. Burdon-Sanderson on the Doctrine of Fever, and Mr. Shattock and Mr. Ballance on the General Pathology of New Growths. One of the most interesting as well as suggestive articles in the Prolegomena is that by Dr. Leech on the Principles of Drug Therapeutics. This is an article which should be read by every physician, old or young, as it will give him valuable ideas upon a subject which of late years has been sadly neglected. Rational therapeutics seems to have been relegated to the past, and this essay alone bids fair to resuscitate the subject and place it in the prominent position it so richly deserves.

Following this are a number of contributions dealing with therapeutic methods and hygienic topics, as well as nursing, massage and diet. Division I. concludes with a well-written paper on Life-Assurance, by Dr. Symes Thompson. Life insurance has become an exact science almost, and yet the results all depend upon the results achieved by the medical examiner. For this reason Dr. Thompson's article is of more than ordinary value, and his deductions will prove of more value than the common directions that are usually given to medical examiners. It would be well indeed for every insurance examiner to read this carefully and consider well, as well as faithfully carry out the directions laid down by the author.

Division II., which is devoted to Fevers, is divided into two parts: part I. deals with Insolution or Sunstroke, written by Sir Joseph Fayrer. His account of the symptoms and treatment is a good one, and fully agrees with what has been observed in this country during the recent extraordinary prolonged spell of hot weather. Part II. is devoted to the Infections.

Of course, but a small portion of them are considered in this volume. Dr. Kanthack contributes a long and elaborate article on the General Pathology of Infection, a subject with which he is thoroughly conversant. A careful reading of this contribution will easily convince any one that it alone is fully worth the price of the entire volume. It is finished and scholarly and leaves nothing to be desired. Septicemia and Pyemia, by Mr. Watson Cheyne; Epidemic Cerebro-Spinal Meningitis, by Dr. Ormerod; Influenza, by Dr. Goodhart; Tetanus, by Sir George M. Humphrey and Dr. Sims Woodhead; Plague, by Dr. J. F. Payne; and Relapsing Fever, or Famine Fever, by Drs. Rahagliati and Westbrook, are some of the subjects which appear in this portion of Part II. The remaining diseases will no doubt fill Volume II. of the work, and include some of the most interesting of the infections.

The work before us has everything to recommend it to every physician who is desirous of increasing his knowledge, perfecting himself in his practice, and benefiting his patients. We have not had the pleasure of reading a better work on medicine for many years, and, judging from the first volume before us, we are of the opinion that many years will pass before a better one is produced. So far as mechanical execution and thorough editorial work are concerned, it is beyond criticism. The dress has been made worthy of the contents, and the typography is clear and large, easily read, and inviting to the reader in all respects. The illustrations and plates are fairly numerous and well executed. The index is well constructed and of that variety which is of the highest utility for purposes of reference. Our closing advice to all practitioners is to avail themselves of this opportunity of getting a good and, at the same time, the best system of medicine which has appeared in recent years.

Literary Notes.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

A System of Surgery, by American Authors. Edited by Frederick S. Dennis, M.D., assisted by John S. Billings, M.D., LL.D., D.C.L. Complete in four imperial octavo volumes, containing 3,632 pages, with index, 1,585 engravings, and 45 full-page plates in black and colors. Vol. IV. Imperial 8vo., pp. 970. 441 engravings, and 23 plates. [Philadelphia: Lea Brothers & Co. 1896. Price per volume: cloth, \$6.00; leather, \$7.00; half-morocco, gilt back and top, \$8.50.]

A System of Medicine, by Many Writers. Edited by Thomas Clifford Allbutt, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A. Vol. 1. Imperial 8vo., pp. 978. [New York: Macmillan & Co. London: Macmillan & Co., Ltd. 1896. Price, \$5.00.

Compendium on Infant Feeding in Health and Disease for the Use of Physicians, Students, Mothers and Nurses, by John W. Kyger, M.D. 12mo., pp. 91. [Kansas City: M. Senter & Co.

Diet for the Sick, by Miss E. Hibbard and Miss Emma Drant. 24mo., pp. 103. 2d edition, revised and enlarged. [Detroit: Illustrated Medical Journal Co. Price, 25 cents.

Diet for the Sick is always of importance, and the booklet published by the Illustrated Medical Journal Co., of Detroit, is a good one. It is contributed by Miss E. Hibbard and Miss Emma Drant. In this little book there is, besides the usual formulæ for "sick dishes," foods and cooling drinks for convalescents, quite complete diet tables for use in anemia, Bright's disease, calculus, cancer, chlorosis, cholera infantum, constipation, consumption, diabetes, diarrhea, dyspepsia, fevers, gout, nervous affections, obesity, phthisis, rheumatism, uterine fibroids. It also gives various nutritive enemata. The physician can use it to advantage in explaining his orders for suitable dishes for his patient, leaving the book with the nurse. The price is 25 cents.

Infant Feeding is by no means the simple matter which it is supposed to be by many. Dr. John W. Kyger, of Kansas City, Mo., has produced a little book on the subject which contains much useful and valuable information. We desire to find fault with his publishers, who have not issued the opusculum in that neat and attractive form which its contents deserve.

Cessation of a Medical Journal in Havana.—The *Revista de Ciencias Medicas*, of Havana, closes its eleventh and last year with the June number (*Jour. Am. Med. Assn.*). The farewell editorial pathetically states that the management is compelled to this decision by "the circumstances through which the country is passing, the general scarcity of resources, the dispersion of the noble medical family, * * * the absence of beloved friends whose coöperation has been so valuable to us, but especially, as the immediate cause, by the assessment levied upon a periodical devoted exclusively to the publication of scientific matters. * * * * *

"Stronger and more solid structures have fallen, men of prominence have been overwhelmed, family after family ruined, and happy hearths deserted; the disappearance of the *Revista* is merely an incident in the general ruin and desolation on all sides."

Melange.

Death of Dr. Ellsworth F. Smith, Sr.—News reached St. Louis Aug. 17 that Dr. Ellsworth F. Smith, Sr., was fatally burned the preceding night at Missoula, Mont., where he was visiting his daughter, Mrs. Crosby, wife of Dr. Crosby, United States Post Surgeon at Fort Missoula.

Dr. Smith left several weeks ago, accompanied by his wife, his son De Mun, and his daughter Minnie.

Several days ago the doctor's little grand-daughter was attacked with typhoid fever, and her condition was the cause of so much anxiety that some member of the family watched over her day and night. On the night of the accident Mrs. Smith was in the sick room with her daughter, Mrs. Crosby. Dr. Smith slept on a lower floor. During the night he arose to lower a window, and carelessly left a lighted candle on the window-sill while he was pulling down the sash. The flame of the candle caught the doctor's night clothing and spread to the lace window curtains.

The doctor, unconscious of the fact that his own garments were ignited, tried to extinguish the burning curtains, which he succeeded in doing, but not before he himself had been frightfully burned.

His wife and daughter, who were aroused by his fight with the flames, rushed downstairs and found the unfortunate old man unconscious on the floor, with his garments still burning. Mrs. Smith was herself badly burned in smothering the flaming clothing of her husband.

The garrison was promptly roused, and the acting post physician rendered every possible aid, but the patient was beyond the reach of medical skill, and died Wednesday, Aug. 17.

Immediately upon receipt of the news, Dr. Smith's sons, Ellsworth and James Shepard, left at once for Montana, to join the other members of the bereaved family.

Dr. Ellsworth F. Smith was born in St. Louis seventy-three years ago and graduated from college in St. Charles County. He then returned to this city and entered St. Louis Medical College, from which he was graduated in 1848. Some months after receiving his diploma he went to Europe and spent four years there pursuing his medical studies.

After his return he began the practice of medicine in this city and soon became an honored and successful member of his pro-

fession. In 1852 he was appointed health officer and discharged the duties of this position with distinguished success for a period of about four years.

In 1856 his recognized abilities and exalted moral character led to his appointment to the chair of physiology in his *alma mater*, the St. Louis Medical College, a chair which he filled with eminent ability until 1870.

In November, 1860, Dr. Smith was married to Mrs. Isabella Chenie, who survives him, and by whom he had six children, five of them now living: Dr. Ellsworth F. Smith, aged 33; De Mun Smith, 29; Mrs. Crosby, 27; James Shepard Smith, 25; and Miss Minnie Smith, 18.

Dr. Smith enjoyed the affection and esteem not only of his professional brethren, but was the subject of the confidence and respect of a wide clientele and an extensive circle of friends.

Funeral services over the remains of Dr. Ellsworth S. Smith were held August 22, at Fort Missoula, in Montana, beginning at 10 o'clock. Requiem high mass was celebrated, accompanied by elaborate choral services. A full battalion composed of the Twenty-fifth Infantry, United States Army, was present and gave the military honors. The remains of the deceased were given burial temporarily at Fort Missoula, where they will remain until members of the family will be prepared to accompany them to St. Louis, where they will receive permanent interment in the family burial lot.

Dr. Joseph Meredith Toner.—Died at his home in Washington, D. C., Aug. 9th, 1896. He was born in Pittsburgh, Pa., April 30th, 1825, and was therefore seventy-one years of age at the time of his death. He was a medical graduate of Jefferson Medical College in 1853, and entered upon practice in Summit, Pa., then Pittsburgh, Pa., then Harper's Ferry (now in West Virginia), and in 1855 settled down in Washington, D. C., which was his permanent home. His was an active life in watching over the interests of the profession in and about the National Capital. He was president of each of the local societies; of the American Medical Association in 1873; of the American Public Health Association in 1874, etc. In fact, he was a leader of every medical organization of which he was a member. The long list of local, state, national, foreign and international medical organizations of which he was an honorary member is too large

to enumerate. The Medical Society of Virginia (of which he was an honorary fellow) was several times complimented by his attendance upon its meetings. During the session of 1880 he contributed to this Society the "Sketch of the Life and Character of Dr. James Craik, Physician of General George Washington;" and during the session of 1885 his contribution was a "Sketch of the Life of Dr. Elisha Cullen Dick, of Alexandria, Va., one of the Consulting Physicians in the Last Sickness of General Washington." His biographical and historic contributions to medical literature were numerous, and have always been held as eminently authoritative. He was a lover of medical books, journals, etc., and his library was considered one of the finest personal medical libraries in the world. It is due to his memory to record the fact that, through the editor of the *Virginia Medical Monthly*, he offered this invaluable library to the city of Richmond or the State of Virginia, provided it should be kept in a fire-proof building and permanently known as the "Toner Library." But as it was impossible to meet the condition of the erection of a fire-proof building for the purpose named, Virginia lost its opportunity, as Pittsburgh, Pa., afterwards agreed to meet the conditions, and has this magnificent contribution. Dr. Toner was a man continuously doing good, stimulating young men to study and research by offering costly medals, etc., as prizes for original investigations.

The Best Method of Teaching Anatomy.—Dr. John B. Roberts writes as follows in the *Philadelphia Polyclinic*:

I. *The Student.*—A prerequisite for the proper teaching of anatomy in medical schools is students able to understand the instruction. This means that their preliminary education should include elementary Latin, physics and biology. The first is needed for the comprehension of the nomenclature, the second to make the mechanic construction of the human animal intelligible, the third to furnish manual training in the use of instruments for dissecting and drawing, and to create a habit of observation.

II. *The Anatomic Laboratory.*—The dissecting room, or anatomic laboratory should be kept scrupulously clean, practically free from offensive odor, and contain subjects properly prepared.

Its furniture should include articulated skeletons, disarticulated bones with muscular attachments indicated upon them, plaster of paris models of dissected regions, wet dissections under glass

with diagrammatic keys hung near them, dry preparations, ligamentous preparations of the joints, and a series of text-books and diagrams. All of these articles should be easily accessible to the eyes and hands of the students. Blackboards for demonstrative diagrams to be made by the teacher or student are essential.

The dissecting done by the student must be neat and thorough, and should not be commenced until he has studied the bones and learned the principal muscular attachments. This is to be done from the bones and skeletons in the laboratory, not from looking at illustrations in text-books. He should be required to describe in writing or demonstrate to his classmates and teacher, that which he dissects, and to make crude diagrams of the relations of parts.

III. *The Teacher.*—The ability to impart knowledge, inspire a love of knowledge and stimulate to independent thought and work is essential in a teacher. A learned man may be dead, so far as teaching goes, as a dictionary or encyclopedia. Medical schools need as teachers men of learning who know how to teach, and who will give time and thought to the duty they assume. The teacher of anatomy must do original work as well as give instruction. If a biologist who is also a practitioner of medicine and surgery cannot be obtained, the anatomic department should be entrusted to two teachers—a worker in biology and a worker in the practical application of anatomy to medicine and surgery.

The professorship of anatomy should be entrusted to an incumbent who expects to hold the place and make its duties his life-work, and not to one who holds it until he can obtain some other position in the faculty.

IV. *Lectures and Demonstrations.*—The anatomic instruction should continue through the first three years of a four years' curriculum, and should be graded. In the first year, osteology, syndesmology and myology should be taught; in the second year, the vascular system, neurology and the viscera; in the third year, applied or clinical anatomy. The lectures should be demonstrative, and illustrated by dissections, blackboard sketches, the living model, and electrical stimulation of the muscles. During the lectures on osteology, the student should have the bones in his hands, so as to verify the statements of the instructor. A proper understanding of the relations of the viscera requires

that demonstrations be occasionally given with the subject hung in the vertical position.

The lectures or demonstrations to beginners should give the broad outlines, without too much detail, and contain frequent repetition of essentials.

Comparative anatomy and embryology should not be neglected by the lecturer. The relation of these studies to human anatomy should be constantly shown.

What I call "anatomical clinics," are most useful in interesting students and impressing upon them the practical value of anatomic knowledge to the physician. To exhibit at one time several nude models, showing the variations in anatomic landmarks consistent with health, and the changes produced by disease, is an efficient means of teaching visceral as well as surface anatomy. A habit of thorough investigation of future patients will be developed by "clinical conferences in anatomy," in which a member of the advanced class is made to demonstrate to his fellows anatomic facts and relations.

Finally, the teaching in anatomy, and indeed in all departments, should be subjected to official inspection and investigation by a committee of the faculty. All men work better if under intelligent supervision. A professor should not be autocratic in his department.

V. *Examinations.*—Examinations are to be deprecated, but it is difficult to omit them altogether. Grading of students by unexpected tests of knowledge made during the systematic work of the year is the best method of determining the propriety of promoting or graduating them. This method of testing the student's knowledge prevents the undesirable cramming for examination which is so common, and obviates the nervous strain which is so distressing. Marks given for recitations and laboratory work may be in some instances utilized in settling the question of permitting a pupil to enter a higher class.

If examinations are adopted, they should be written, oral and practical. If only one form of examination can be given, the written is the most just; for the student can be given all the time he wants, and the examiner can readjust any unintentional injustice in marking, by comparing the worst papers with the best. The papers should not be marked by the student's name, but by numbers, so that the examiner may not recognize the author.

Miscellaneous Notes.

A High Reputation Sustained.—*The Medical Times and Hospital Gazette*, London, May 30th, 1896, speaks so favorably of its experience with the American analgesic, antipyretic and anodyne, a preparation the medical profession has become accustomed to regard as one of the certainties of medicine, that we reprint below its words of approval, knowing them to be in accord with the consensus of opinion as expressed by the medical men in this country. "Antikamnia—under the above name, a free translation of which is 'opposed to pain'—now being introduced to the profession in the United Kingdom, is an analgesic, antipyretic, and anodyne drug, which has already gained a high reputation in the United States. It is a coal-tar derivative, and belongs to the series which form the various amido compounds. It differs therapeutically, however, from most coal-tar products in producing a stimulating instead of a depressing action on the nerve centers, especially those acting on the heart and circulatory system; hence, it may be administered, even in large doses, without fear of producing collapse and cyanosis, as occasionally occurs after the administration of antipyrin and other similar analgesic compounds. It has been very largely used in influenza, hay fever and asthma, with good results; but its most markedly beneficial effects are experienced when administered in neuralgia, rheumatism, sciatica, headache, and pain due to disorders of menstruation. As an antipyretic, it is recommended to be given in doses of from five to ten grains every ten minutes, until the temperature has been reduced, or until forty or fifty grains have been taken, after which the remedy should be given at intervals of greater length. To relieve pain it is recommended to begin with a five-grain dose; three minutes later the same dose to be repeated, and, if the pain continues, a third dose to be given a few minutes after the second. In our practice we have not found it necessary to give the remedy at such short intervals. In the treatment of neuralgia and headaches we have had satisfactory results from giving five-grain doses at intervals of ten to twenty minutes, until three or four doses have been taken. We may add that the drug is sold in tablets (three and five-grain sizes) as well as in the powdered form. The former may be swallowed whole, or crushed and dissolved in glycerine and water, or in an alcoholic menstruum. The powder is conveniently given in cachets, or dissolved in a little wine or aromatic tincture, combined with glycerine or syrup. The drug is deserving of trial, and those among our readers who have not yet tested it should write for a sample."

Extract Pinus Canadensis.—W. C. Frederick, M.D., Lono, Ark., says: "I have used S. H. Kennedy's Extract of Pinus Canadensis (dark), one to three of water, in sore throat from cold, with splendid results, and have now under treatment a little boy, three years old, suffering from strumous diathesis, who had been afflicted over a year with otorrhea. Have been using as an injection two drachms of S. H. Kennedy's Extract of Pinus Canadensis to four drachms of water, three to five drops, two to three times a day, the ear previously cleansed with castile soap. The little fellow commenced to improve from the very start, and is rapidly improving daily; the discharge has almost ceased. He has been on this treatment for about two weeks."

Wanted.—Graduates of medicine who desire to engage in a pleasant and profitable business to write to **HIRSCHBERG OPTICAL Co.,**
St. Louis.

Cholera Infantum.—Wm. R. Browning, M.D., New Orleans, La., says: "With the approach of the summer months, and the depressing influence of a high temperature, we are called upon to treat that disease which is so much dreaded by mothers as well as physicians—Cholera Infantum.

Improper feeding is usually the starting point in almost all these cases, producing, as it does, fermentative disorders of the stomach with increased gastro-intestinal irritation, resulting in frequent vomiting and purging.

In such cases I have found nothing so valuable as the following:

℞ Hydrag. chlor. mite..... gr. ss.
 Pulv. ipecac..... gr. iiss.
 Sodii bicarb..... gr. v.
 M. Ft. chart No. v.

Sig.—One powder every hour until proper effect ensues, then I use the following:

℞ Bismuth subnit. (Squibb's)..... 3 ij.
 Elixir Maltopapsine (Tilden's).
 Syr. rhei arom.
 Aq. Cinnamonil..... āā ʒ j.

M. Sig.—Teaspoonful every second or third hour, as indicated.

Papine and Bromidia.—There is no opiate that serves the purpose that does Papine. Bromidia speaks for itself. Iodia is an alternative, unsurpassed in its merits. I prescribe these remedies, and specify Battle & Co's., because they are so well prepared that I think no drug store or prescriptionist capable of combining their ingredients so nicely, so accurately, and all considered so reliably as they are coming from their laboratory.

J. H. GILES, M.D.

West Nashville, Tenn., Dec. 23, 1895.

A Vegetable Digestant.—Papain, the purified dried juice of the unripe fruit of *Carica papaya* (Papaw), is popularly called "the vegetable pepsin;" it has the advantage over pig's or other animal pepsin (aside from æsthetic palatability) that it will act in all media—acid, alkaline and neutral—while pepsin acts only in the presence of acid.

There is a prominent dissimilarity between the two products, however, which is not generally considered and may, therefore, often lead to unsatisfactory results in treatment, and that is, that Papain is distinctly a better solvent of fibrine, or meat, than pepsin while much less active on albumen.

The standard test for pepsin is its solvent power on albumen; for Papain it is measured on fibrine. Of the two, considering that stomach derangements are usually due to too much or indigestible meat, Papain is more valuable than pepsin, because

1. Papain acts in acid, alkaline and neutral solutions, while pepsin acts only in presence of acid;

2. Papain is a palatable vegetable product, acceptable to the most sensitive stomach, while pepsin is an animal product, often putrid and always noxious;

3. Papain has a greater solvent action on fibrine than has pepsin.—*Am. Therapit.*

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 670.

VOLUME LXXI.—OCTOBER, 1896.—No. 4.

Original Communications.

SUPPLEMENTARY COURSES OF TREATMENT REQUIRED FOR CHRONIC
NASAL INFLAMMATION. By THOS. F. RUMBOLD, M.D., St.
Louis, Mo.

By supplementary courses of treatment for chronic inflammation of the nasal passages is meant a renewal of the local applications at such seasons of the year as the patient is most liable to have renewed colds in his nasal passages, throat and ears. They are given to a patient who has been under the care of a physician long enough—from two to five months if an adult—to reduce his nasal inflammation to such a condition that he does not complain of any of his former symptoms, but not long enough for the inflamed membrane to have completely recovered. In such a case the secretion from the mucous surfaces has assumed nearly its normal character and quantity, and all abnormal growths—should there have been any—have been removed from the nose, throat and ears.

Importance of Supplementary Treatment.—During my pupilage with Dr. S. D. Gross in Philadelphia, in the fall of 1861, I was fortunate enough to pay attention to the remarks of some

intelligent patients concerning the value of a few treatments given at early portions of the spring or the fall. At that time I thought that some patients took cold more easily in the spring, and others more easily in the fall. In either case a prophylactic course was recommended. I was more fully impressed with the benefit of this method while treating a number of cases of nasal disease in the U. S. General Hospital at Jefferson Barracks, Mo., from 1862 to 1865. While in this hospital I had a number of such patients under my daily sight for nearly three years, so that I was well able to judge of the liability of the disease to return at the changes of the seasons even under the most favorable circumstances. While in this hospital I found that instead of giving a few treatments either in spring *or* in fall, that is, in which ever season they took cold more easily and severely, they should be treated both spring *and* fall, that is, *two* seasons after the first or primary course, instead of one.

In a paper I read in the St. Louis Medical Society in June, 1868, on "Treatment of Simple and Ulcerative Rhinitis," I mentioned the importance of such treatments. The points of the paper were the hygienic rules which I directed my patients to follow during and after treatment, and the "necessity for spring and fall treatments to maintain the still weakened mucous membrane in such a condition that it could in time recover its normal defensive power, so as to withstand the inclemency of the weather at the changes of the seasons of the year;" both points absolutely essential to the ultimate cure of this disease. By this time I found that *more* than two seasons of supplementary treatments were required for most patients.

This paper was published in pamphlet form in 1870. In my work on the "Treatment of Nasal Catarrh," 1881, on page 255, I stated: "These fall and spring treatments (for patients from twenty to forty years of age) will have to be repeated from three to five years; and for the oldest class they will have to be repeated fall and spring, or fall or spring maybe during their life time." Showing that I had again increased the number of supplementary treatments. In my work on the "Medical and Surgical Treatment of Catarrhal Disease of the Nose, Throat and Ears," 1888, p. 476; and again in the *Journal of the Am. Med. Assoc.*, June, 1893, page 885, I repeated the same thing.

The Liability of the Return of the Disease.—One of the reasons for the general impression that nasal inflammation is incurable—an impression that exists among the medical profession, and is held by the laity—is that the disease is universally observed to give evidence of return at the next change of the season after the primary, long course of treatment, either spring or fall. This return is observed in all patients, from the tenth or even in some instances from the fifth year of age, upward. The return is taken as an evidence that the first or primary long, expensive course of treatment did not cure the case, *and be it marked*, this is true; but if a few treatments with the spray-producers are given at the right time, it will be found that all of these symptoms disappear at once, at least, in very much shorter time than during the primary course of treatment. Generally the supplementary treatments in the spring and fall amount in number to about ten per cent. of the number of primary course. For example: if the patient has required fifty or seventy treatments during the primary course, the supplementary treatments will be about five or seven during spring and fall. If the patient takes good care of himself the number of these spring and fall treatments will gradually decrease year by year, as his mucous membrane returns to its normal condition, and it always does return to this condition if the patient—under forty-five years of age—takes good care of himself. As all the growths have been removed during the primary course, the case is one of uncomplicated nasal inflammation, and this inflammation is not of such an atonic character, and disappears under a few treatments.

The ultimate curability of this disease is a frequent subject of discussion during the primary course of treatment of a patient. After he has been under care for a few days, long enough for me to be enabled to judge as to the length of time required for this primary course, I tell him, as agreed upon the day of the first visit, about the number of treatments that will then be required, and about the number of courses of supplementary treatments as well as the number of treatments of each of these courses. The whole subject is usually talked over so that there is a perfect understanding, and with this understanding the patient places himself under my care *for a term of years*, the length of which will be according to the chronicity and severity of the disease.

Almost always the patient will voluntarily say that he will not forget to call for his spring and fall treatments; but should he do so, I write him a letter, again going over what I said to him during the primary course of treatment, plainly telling him that the supplementary treatments are required to continue the healing process commenced by the treatment he has received. The fact that the patient has been relieved of troublesome subjective and objective symptoms renders him unconscious of the necessity of further treatment, and the dread of further increasing his expenses is an additional reason for keeping away from his physician, notwithstanding the promise to return; but the certainty of the return of the disease and the uncertainty of the return of the patient makes it imperative that he be reminded by letter concerning the importance of the supplementary course.

While it is a matter of importance to the rhinologist's reputation that these supplementary treatments should be given, it is sometimes also a matter of great difficulty to get the patient to return for them, and were it not that a promise of a cure, or of an alleviation, as the case may be, has been made upon these conditions, it would be very convenient to let the patient go without a written notification. If he does not come, consequently is not cured, he adds additional facts to the report of the incurability of the disease, and says that his physician did not perform his promise. This alone is what makes it worth while to keep him in sight and under treatment. In five to seven years the number of these uncured, delinquent patients will be so great and their complaints so continuous that they will have a very injurious effect on one's practice. It is plainly seen that the only way to prevent this injury is to have them return for the supplementary courses. In a word, they must be cured, and the supplementary courses are essential to their complete recovery.

Toward the end of these supplementary courses the patient's mucous membrane may be so nearly in a normal condition that ordinary exposures will have no ill effect upon this once excessively sensitive membrane; therefore, he may miss a spring or a fall course, or he may pass a year or so, and then require but one or two local applications.

Too much emphasis cannot be laid upon the importance of curing curable cases by the supplementary treatments, and of continuing the spring and fall treatment with those whose age

or the severity of the disease precludes a cure—cases in which a promise of relief only has been given. The measure of success following my practice in the treatment of this disease in a large proportion of my patients justifies me in this course.

The best seasons of the year are spring and fall; usually from March 15th to May 15th, and from September 15th to November 15th. These dates are in the seasons of the greatest change or variance of temperature and moisture; and I have found, from many years' careful observation, more persons require treatment at these seasons than during any other periods of the year.

The Number of Supplementary Courses.—The age of the patient, which nearly always agrees with the grade of the inflammation, will do much to determine the number of supplementary treatments at each course, and the number of years that these courses should be repeated. Also the number and extent of the growths removed will have a determining influence as to the number of supplementary treatments. A boy of fifteen who has required the removal of a large number of growths from his upper air-passages is in need of a greater number of these courses than a person of even thirty years of age who has not required the removal of abnormal growths.

The infant may require two to four treatments at the next change of season after its first or primary course. If it has secretion flowing from the nasal passages, or if it has acquired growths on the tonsils, then it certainly will require a supplementary course. The mucous membrane, even at this age, will not have completely recovered during the primary course of treatment. These treatments are given at proper intervals during the sixty days that form the season for supplementary treatment.

Children from the third to the tenth year of age, even with uncomplicated nasal inflammation, may require a few supplementary treatments, usually from four to six for one or two seasons; while those who have growths removed, or have had ear complications, will require these treatments for two years at least.

Youths from ten to twenty years of age having uncomplicated nasal inflammation will require from five to ten treatments during each supplementary course for two years. A case complicated with growths or with deafness will require two more of these

courses. If these supplementary courses are not taken the disease will certainly return, as will the growths, and in a few years the patient will be in as bad a condition as though no treatment had been given or no growths had been removed. This must be plainly and repeatedly told the patient.

Adults almost universally have nasal inflammation of so severe a character and so long continuance that they have a large number of nasal growths, and many also have growths in the throat and sometimes in the ears, as well as lung or other complications. They will require from eight to fifteen treatments at each change of the season for from *three to five years*.

It should not be expected that the blood-vessels of the mucous membrane and of the submucous tissues, which have been enlarged to twenty or forty times their normal diameter, would be reduced to their normal diameters by the curative effect of a few months' local application. Such an expectation could be expressed only by a person totally unacquainted with the pathology of naso-mucositis. Even considering the mucous membrane alone, it is still in an atonic condition, and although the inflammation is greatly reduced, and all the former painful symptoms absent, yet the membrane must be maintained in an unirritated state for from *three to five years* before complete recovery can take place—before nature can make complete reparation. It requires this length of time, and the correction and protection of the supplementary courses, to allow it time to regain its normal resisting power; and it will not have done this until its blood-vessels and nerves have returned to their normal condition. As soon as this has taken place the patient, instead of taking cold more frequently than anyone around him, will be no more liable to take cold in his nasal passages, throat and ears than in the other organs of his body. This is a positive evidence of his complete recovery; after this no more supplementary courses are required. In case these courses are not taken the inflammation will certainly commence to increase with the first colds, which usually take place at the change of the seasons.

If the patient is forty-five years of age, or older, the return of growths very seldom takes place; even if the inflammation returns with unusual severity the extension of the disease is towards other organs—notably the eyes, the lungs, the stomach and the brain. If the first, it is shown by the rapid changes of

the anomalies of the vision; if to the last, it is shown by unusual acts of forgetfulness, unusual irritability of temper, and by symptoms that are frequently called nervous prostration, etc. In a very few instances insanity results from the extension of this disease to the brain.

Dr. Besnier will be the president of the next International Congress of Dermatology, which will be held in Paris in 1900 during the exhibition year.

Anti-Vivisection Fallacies.—An excellent example of the consummate ignorance of those well-meaning but rabid fanatics, the "Anti-vivisectionists," is given in their paper, the *Zoophilist*, this month. Any stick is good enough to beat a dog with, and those who run this paper have noticed a recent note in the *Journal of Pathology and Bacteriology*, in which the results of larger doses than usual of acidum hydrochloricum dilutum on the metabolism of the body are given. Because, forsooth, the physiologist who investigated this point gave to a patient somewhat greater doses of the acid than the compilers of the British Pharmacopeia have in their wisdom imagined to be the maximum, he is gratuitously and publicly attacked for experimenting on the human subject (*Med. Press*). Because the Pharmacopeia gives a certain quantity of a drug as the usual maximum dose, it by no means follows that even much larger quantities may not be used with advantage and without risk. Dilute hydrochloric acid, in fact, may be given *ad libitum* if sufficiently diluted with water. Are medical men to be attacked if they publish the history of a case of aneurism or of syphilis in which they have prescribed more than twenty grains of potassii iodidum, the maximum B. P. dose? Why, drachm doses are frequently necessary. The *Zoophilist* should take greater pains to get up its facts correctly before attacking members of the profession in search of the truth, and should learn that the officinal doses as recommended by the Pharmacopeia are the usual doses given, not the maximum quantities which may be prescribed, and that even then the present edition of the work is by no means free from many gross errors, and its dosage frequently puerile and misleading.

THE TREATMENT OF GENERALIZED LICHEN PLANUS BY BINIODIDE OF MERCURY. By MALCOLM MORRIS, F.R.C.S. Ed., Surgeon to the Skin Department, St. Mary's Hospital, London, England.

The object of this brief communication is not to discuss the whole subject of the treatment of lichen planus, but to place on record the good results which I have obtained in a certain class of cases by the use of a remedy which, as far as I know, has not previously been employed for this particular purpose. The papular eruption characteristic of the disease is, as everyone knows, generally seen in localized patches confined to a few regions, and the process is distinctly chronic in type. Much less frequently the affection runs an acute course, the lesions coming out in crops and spreading rapidly all over the trunk and limbs. This generalized form of lichen planus is accompanied with subjective symptoms of extreme severity, intense burning, smarting and itching, and general soreness and tenderness of the skin, making it painful to the patient to lie down. The cutaneous irritation is so great that sleep is almost impossible, and the whole nervous system is worried into a condition of almost uncontrollable excitability.

In this acute form of the disease local treatment is of little use in checking the process, though sedative ointments and lotions may to some extent subdue the irritation. For internal treatment the orthodox remedy is of course arsenic, and I can add my testimony to that of all other dermatologists to its efficacy in a considerable proportion of cases. Only a moderately large experience in the treatment of generalized lichen planus, however, is needed to open the eyes of the practitioner to the fact that arsenic is far from being a specific in such cases. Moreover, in order to produce the desired effect, it often has to be given in very large doses and for several weeks continuously. When arsenic failed in my hands, I used formerly to have recourse to antimony ($\mathcal{M}\nu$ j of the vinum antimoniale in \mathfrak{Z} j of water three times a day, after an initial dose or two of $\mathcal{M}\text{x-xij}$). In some cases this treatment was of distinct service.

During the last two years I have used the biniodide of mercury as an internal remedy in cases of generalized lichen planus with highly satisfactory results. At first I used this method of treatment as complementary to a course of arsenic given in the ordi-

nary way. More recently, however, I have used the biniodide alone in several cases with a measure of success, which encourages me to suggest that other dermatologists should give the treatment a fair trial and report the results.

The following may be taken as a typical formula:

℞ Liq. hydrarg. perchlor ʒj.
 Potass. iodid gr. xl.
 Decoct. sarsæ co..... ad ʒviiij.
 M. ft. mist.

Sig. Two tablespoonfuls to be taken three times a day.

I have now used this mode of treatment in some twenty cases, both in hospital and in private practice, and it has always given decided relief, and has in several instances effected a speedy cure. The following case, which I recently showed to the Dermatological Society of London, will serve to illustrate the results of the treatment and the class of cases in which it is likely to be beneficial:

A woman, æt. 51, first presented herself at the Out-Patient Department of St. Mary's Hospital on February 20th, 1896. She was suffering from well-marked generalized lichen planus of the classical type. The patient, who was a nurse, attributed the onset of the disease to washing her hands in some antiseptic fluid while tending a patient suffering from diphtheria in October, 1895. The eruption first appeared on the hands and arms, and afterwards on the thighs, abdomen, chest and back. When first seen by me it covered the whole body, the lesions being gathered together in groups in many places, and being agglomerated particularly on the outer surfaces of the thighs and on the back. The mucous membrane lining the cheeks was also the site of typical lesions, and there was a large patch on the tongue. The subjective symptoms were very severe, the sensations complained of being smarting, burning and pricking, rather than itching. The patient was in a state of acute suffering, worn out by want of sleep, and very nervous and depressed. Arsenic had proved useless, and local treatment had given but little relief. I ordered her biniodide of mercury, in the manner that has been described, and on the third day after the first administration of the drug the patient began to improve. The subjective symptoms were relieved, the eruptive process was cut short, and the lesions gradually underwent involution. In a few weeks nearly

every trace of the disease had disappeared, and calm had been restored to the disturbed nervous system. I have given details of this case, not because it is an instance of exceptional case, but because I happen to have the notes of it ready to my hand. In several other cases of the same type the internal administration of biniodide of mercury has been followed by equally satisfactory results.

I have tried the treatment in the chronic localized form of lichen planus, but without appreciable benefit.

Of the manner in which the drug exercises the controlling action which has been described in cases of the acute generalized type, I am unable at present to offer a completely satisfactory explanation. There is no evidence, as far as I know, that parasites play any part either in starting or in keeping up the morbid process. It is well known, however, that mercury, besides its parasiticide action, has valuable tonic properties. Not only does it neutralize the effect of toxins carried about in the bloodstream, but it actually increases the number of red corpuscles. Moreover, it quickens the activity of tissue changes. These therapeutic properties would naturally point to mercury as an agent likely to be useful in an acute process such as is seen in generalized lichen planus. Peroxide of mercury has been used as an internal remedy by Dr. Liveing when arsenic has failed. I have, however, found the biniodide much more efficacious than the perchloride, and my experience of it in generalized lichen planus may be added to the accumulating testimony to its value in the specific exanthemata, diphtheria, etc.

Unna claims to have cured a series of cases in three weeks without any internal treatment, by frictions with a pomade consisting of one gramme of corrosive sublimate, twenty grammes of carbolic acid, and five hundred grammes of simple ointment. It is clear, however, that however useful this mode of treatment may be in cases in which the lesions are localized, it could hardly be employed in acute generalized lichen planus without risk of mercurial poisoning. Of course, the use of appropriate local remedies may, if need be, be combined with the internal administration of the biniodide.

COMPARATIVE VALUE OF THE SENSE OF HEARING TO THE SENSE OF SIGHT. By M. A. GOLDSTEIN, M. D., B. Sc., St. Louis, Professor of Otology, Beaumont Hospital Medical College; Consulting Aurist to the Alexian Brothers' Hospital, and to the Sisters of St. Joseph School for the Deaf; Aurist and Laryngologist to the Lafayette Dispensary; Editor *The Laryngoscope*, etc., etc.

The sense of hearing, being necessary to social intercourse, and not easily admitting of a substitute, stands in even a more intimate relationship to the intellectual life and spiritual education of mankind than the sense of vision with its recognition of form and color.

In the consideration of this theme it may be interesting to trace the relative importance of the two most prominent organs of special sense, the ear and the eye, in their physiological, anatomical and economic bearing to the general system.

Anatomically compared, there exists an analogy between the ear and the eye, which is truly remarkable, an analogy which is demonstrated in every detail of construction.

Membrana tympana versus cornea—ext. audit. canal versus iris—cerumen versus eyelash, cavum tympanum versus lens—optic nerve versus auditory nerve—labyrinth and organ of Corti versus retina and rods and cones—sound versus light. The comparison is endless. From a physiological point of view we note:

That there is only *one* stimulus which excites the optic nerve, *light*. If electrical, mechanical or other stimuli be applied to the optic nerve, *light* is the only sensation which is produced. Unaided, the eye perceives *color* and *size* only. The judgment of form and distance is only a matter of education, and cannot be accomplished by the eye alone.

Without the sense of *touch* the eye is absolutely powerless to convey the impressions of form, weight, distance, thickness or density. The ear, on the contrary, performs all its functions unaided, and is more universal in its comprehension. Not only does it comprehend the *quality* of sound, but also the pitch, the intensity, and the distance at which the sound is produced.

The eye, deprived of the sense of *touch*, is left a comparatively much weaker organ; stripped of many of its important perceptions, which it is unable to perform without this valuable aid.

The ear, as is evident to all, works *unaided*, and the depriva-

tion of any of the special senses does not lessen its power; on the contrary, it strengthens it and makes the hearing more acute. An excellent instance of this is in the blind, where, in many cases, the sense of hearing is very highly and keenly developed. In the blind the sense of *touch*, which is virtually the *accessory* organ to the sense of sight, becomes so highly developed, and so wonderfully sensitive, *as almost to act as a substitute for the eye*; and for the blind, the training and teaching can be so thorough as to almost substitute the delicate *touch of the finger tips for the sense of sight*.

Have you ever visited a school for the instruction of the blind—have you noted the school room filled with contented, peaceful faces—the hands of the pupils gliding noiselessly over the pages of their embossed-letter books, following the teacher attentively as he reads the lesson of the day; pupils, whose sympathies, whose interests, whose ambitions can be aroused by the sound of the human voice?

Have you ever been informed as to their rapid progress in scholastic work; of the brightness of their minds, the cheerfulness of their disposition, their love for music and the harmonies of sound, their ambition to become educated?

Let me now present *another* school-room picture—a school-room in an asylum for deaf mutes. The first striking comparison is the age of the pupils. Our blind pupils wear happy, young faces; here these deaf mutes seem prematurely aged; their faces lack expression; the teacher's labors are manifold, for the powers of comprehension of his pupils are blunt. They cannot hear the appeal and the influence of the mighty human voice. Alas! not only they cannot *hear* the human voice, but their own *power of speech* is gone. Either they have been *born* deaf and have never known what the human voice in all its grandeur *is*, or, in their deafness, its magnetic sounds have long since been forgotten.

So a *double* misfortune stares them in the face. They are both *deaf* and *dumb*; they may see, but it is with difficulty that they convey their impressions to others; they may taste or touch, but their limited development allows them but small opportunity for appreciation. Their progress is slow, and that fact in *itself* is an important consideration. For with that great opportunity of educational development, *reading*, it

would seem that a great portion of intellectual advancement is in their grasp. Yet they *cannot* rise to the occasion, and that reading does *not* appeal to *them* as to a *healthy reader* is sufficient proof of their stunted faculties.

The influences which even *partial* deafness exert upon the intellectual development of a child are of paramount importance. The beginning and basis of all knowledge is the sense of experience. The impressions of external objects as they are carried by the senses to the brain furnishes to the intellect the materials for the foundation of ideas. The more acute our senses are, the more clearly and plainly our expressed thought; if, on the contrary, the sensitive perceptions are blunted, are partial and undecided, the entire nature and character of the individual will bear the stamp of incompleteness and uncertainty.

A young child cannot *read* expressed thoughts, but it can *hear every sound* of the ever-powerful human voice, and is always thrilled by its wonderful influence. There is nothing so impressive, so awe-inspiring, so commanding, so effective, exerting so strong an influence over the human mind, as the human voice; and there is only one way in which perception and conception of the human voice is possible—only one way by which the voice can reach and stir the human soul—and that is the ear.

Therefore deafness occurring in early life acquires a permanent influence upon the formation and development of the intellectual and moral nature. Such unfortunate children are not only unable to concentrate their attention, but they remain inattentive and fickle, while the want of an acute perception, which is chiefly attained through the ear, renders a connected train of thought and a comprehensive understanding very difficult.

At school these little unfortunates are subject to the constant ridicule of their classmates, and are continually reprimanded by their teachers for their inattention. Can you picture to yourselves for a moment the anguish and distress stirring the feelings of these little souls? This is true even of a moderate impairment of hearing; if, furthermore, there is a high degree or *total* deafness the calamity is indeed great and sad; for the child who does not *hear* the human voice does not learn to *speak at all*, or if older forgets the sound of the words, and in either case becomes completely *dumb* as well as *deaf*.

The blind are shown every compassion, every assistance, every

sympathy; they are guided in every way, and are as a rule a happy, contented lot.

The deaf are left to stir for themselves, subject to the ridicule of their associates, ostracised from society, helpless in the articulation of speech, helpless in the perception of sound. They can communicate only with their own unfortunate associates or those trained in the use of their signs.

This factor alone — the comparative reception of the blind and the deaf by their fellow men—might be cited as a criterion, a standard, of society's judgment as to which is the greater misfortune.

The sway of musical sounds over the soul, the power of the spoken word, giving beauty and expression to thought, are forces appreciated by every one open to the influences that make the cultivated man.

Laughter as a Symptom of Disease. — From Austria comes a curious account of a man suffering from a nervous disease that manifested itself in paroxysms of laughter (*Jour. A. M. A.*). The patient, whose case was described before the Psychiatric and Neurological Society of Vienna, was 30 years of age, and had been subject for three years to fits of laughter, which occurred at first every two or three months, gradually increasing in frequency to a dozen or more a day. The attacks occurred especially between 9 P.M. and 6.30 A.M. Some occurred also during the day, however the patient happened to be occupied. In the intervals between the attacks, and immediately before and afterward, the man appeared perfectly well. The attacks commenced with a tickling sensation arising from the toes of the left foot, and the patient would fall to the ground unless he could reach some place to lie down. When this feeling reached the level of the left nipple the patient lost consciousness for a few seconds. Often the patient lay upon his face. The mouth and eyes were closed spasmodically, the eyeballs turned upward: the pupils were dilated, and unresponsive to light. At the height of the attack the patient at first smiled, then laughed aloud without other sign of merriment. The entire attack occupied about two minutes. On two occasions there was protracted loss of consciousness.—*Pop. Science*, September.

Editorial Department.

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Editorial.

THE RECENT GRADUATE IN MEDICINE.

Now that the medical colleges have once more opened their doors to the aspiring young men who are anxious to obtain medical diplomas, it may not be inopportune to make some inquiry in regard to what they may expect after they graduate. They will certainly be well equipped so far as a long term, increased studies, better methods of instruction, and more facilities can accomplish this. All these advantages, however, will not supply them with a practice, nor will they contribute to any great extent to their pecuniary advancement. There are certain conditions whose trend is certainly in an opposite direction, and which should be carefully taken into consideration by all those who contemplate embracing a medical career. They are of such a nature that careful inquiry must be made in order to become fully acquainted with them, and a thorough knowledge of them might possibly act as a deterrent upon the ambitions of those who do not fully know their action as thorns in an otherwise rosy path.

The graduate, as soon as he is armed with a diploma, looks about him for worlds to conquer. He is filled with a laudable ambition to make not only a brilliant reputation by means of his wonderful cures, but also easily and rapidly win a fortune. Armed like a Paladin, with plume on high, he throws his banner, otherwise his sign, to the breezes. He is ready for any foe worthy of his steel, and his heart beats high with hope. His office is ready for the rush of patients, but not an one appears. Days lengthen into weeks, and but very few have strayed in, and these have asked to have the calls "charged." Accident cases occasionally occur, and the unfortunate victims have no money. The glittering visions which but a short time before were so fascinating have given place to gloom and darkness impenetrable. Ambition begins to wane, and efforts are being made to obtain a few patients, if such there be. A life of mediocrity, privation and drudgery is but too often the final result, success being the exception with the few. Bitter thoughts and still more bitter speeches but too often are indulged in as a result of disappointed hopes. How often have we heard the remark that the older practitioners, like the Old Guard, "never resign and seldom die." Such carping critics forget that in medicine, as in everything else, the supply is always regulated by the demand. If the former be greater than the latter it cheapens, and is often not wanted. In addition to this it must not be forgotten that the law of the survival of the fittest also holds good, and that the weakest will inevitably go to the wall.

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The environments of the recent graduate and circumstances are such that the question which naturally suggests itself is, "how can he earn a living?" If an analysis of existing conditions be made it will be found that the question is much more easily made than answered. To begin with, the number of physicians is so large that the ordinary practitioner is forced to depend upon an exceedingly small number, for from the grand total must be deducted the comparatively large number who are inmates of eleemosynary institutions. Of those who remain a large proportion never go to the office of a practitioner, and when they call him in they seldom pay, or it is such a pitiful amount that it amounts to less than a drop in the bucket when compared to the expenses incurred. The whole question re-

solves itself on the one point—the opposition which cannot be overcome. This is of a form such that it will bring either contempt or ridicule upon the one who makes a complaint. Or worse than either, covert innuendo, and a deliberate planning to encompass the destruction of him who is so bold as to consider himself ill-treated or unfairly used. It resolves itself into the question of the iron kettle and the earthen pot. The result is certain. The question then inevitably resolves itself as to what method is the beginner to avail himself of in order to make both ends meet. He is confronted with the code of ethics and receives lessons in regard to those things which are unbecoming in a medical man. The fee bill is flourished with a great blare of trumpets, and he is made to understand that these are the only becoming things in a self-respecting physician. All these things make a great impress at first, but when the trusting neophyte finds that all these high-sounding words are but the hollow echoes of meaningless phrases, and that but too often his former professors ask less for their services, the golden apples of the medical Hesperides turn out to be but dead sea fruit. His heart is filled with bitterness, and he wonders how he could have had his eyes covered with such specious scales of hollow pretences and tenuous sham.

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Let us now consider the various sources of opposition which confront the young graduate. Of course these only exist in cities with some pretenses to population, and unfortunately the recent graduate is always anxious to pitch his tent in a city, as it will afford him a broader field for the exercise of his talents. In the first rank we must place college clinics. They all vie with one another to see which one will have the greatest number of patients in attendance, and the college which has the largest clinics is pretty certain to have a preponderance of students. This is certainly a great advantage to the student, and yet the large number of cases is certainly inferior to the few which are thoroughly studied and understood. The constant striving for large clinics has certainly resulted in building them up, but enough discrimination has not been exercised in this work. Patients well able to pay and in moderate circumstances come to clinics in large numbers, as it costs them nothing for skilled services. We have heard patients state that they would not go

to an ordinary physician and pay him a fee when they could go to a professor's clinic for nothing. The very object of the clinic—to give medical services to the poor—is thus defeated, and in this manner a certain number of available patients taken from the general practitioner. Again, certain patients desire to have the services of a man of high reputation. Not being able to pay his fees they go to his clinic. If the number of patients who attend college clinics is taken into consideration, it will be found to be enormous, and it constitutes just so many supports of the profession which are withdrawn. Take this into consideration with the increase in population, and the increase in the number of physicians does not hold its own. We do not wish to decry college clinics, as they are absolutely necessary to the education of the medical students; but the abuse of these clinics by people well able to pay should be stopped, and the practitioner afforded an opportunity to earn a decent living. One of the results of the college clinic has already shown itself, and has been taken in hand by younger members of the profession. In every large city two or more have banded themselves to establish free dispensaries. As the signs and cards of the institutions announce “no charge for services, only a moderate fee for medicine.” They argue, and with some show of reason, that if colleges can do this they have as much right to do the same thing. The result is the physician's services are brought down to nothing, and those not connected with dispensaries have a much more difficult condition of affairs to contend with. The final outcome can be but one—the division of the profession into two classes, the very cheap and the very expensive, according to their reputations and opportunities.

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We could go on multiplying the factors which go far toward cutting off the legitimate income of the practitioner who is “unattached.” Thus sick insurance, as it is called, now guarantees medical attendance, either ambulant or hospital, to workingmen and their families, including medicines, upon payment of a fee of fifty cents per month. This is certainly economy *in excelsis*, and savors a great deal of the Chinese method of paying the physician as long as the patient is well. Then again we have the railway hospitals, in which railway employes, including clerks, are cared for at the rate of fifty cents per month. The various

corporations, street-car companies, etc., have their surgeons at fixed salary per annum, which amounts to much less than the regular charges would be.

We do not wish to call attention to counter prescribing in drug-stores, to the horde of quacks which infest every large city, and the itinerants who prey upon the inhabitants of rural districts. It is sufficient to bear in mind that they do exist, and that the masses are influenced by the cheapness of the one and the brazen effrontery of the other, disregarding the able and honest plodder who believes that "the laborer is worthy of his hire." In the face of such difficulties the problem of how the recent graduate will or can earn a living becomes one of very difficult solution. The cry has gone forth to raise the standard of medical education, and thus diminish the number of graduates. It is being done, but there are almost as many graduates as ever. It has been suggested to lengthen the term to such a degree as to be almost prohibitory, but those interested in the medical colleges will not consent. So that the problem is as far from solution as ever. The best plan to our mind is for the prospective medical student to acquaint himself with the real state of affairs, and we feel confident that when he becomes acquainted with it he will hesitate a long time before committing himself to the cultivation of such an unpromising field.

OBSCENE PATENT MEDICINE ADVERTISEMENTS.

It is with pleasure that we reproduce the following editorial from the Chicago *Medical Standard*:

The prurient prudes of the Washington Rescue Society, just now pouring their vials of wrath on the bicycle as the source of female immorality, could with advantage devote the energy thus wasted on the more demonstrably objectionable and (in many States) illegal advertisements of patent medicines for the use of women. The patent medicine monger has recently awakened to the fact that young girls have not been sufficiently instructed in the psychic and physical phenomena of puberty and menstruation. Here, as in modern fiction, the worst sinners are women who (*Med. and Surg. Rep.*) first catch the eye of the victim with some such complaint as that "only a woman can understand

woman's woes." Frequently is encountered a picture of a miss of 18 writhing with dysmenorrhœa. The latest abomination is a novelty in which some phase of female weakness stands between the heroine and marital bliss and in which sexual restoration, a vegetable compound, and marriage bells are artistically mingled. The purpose of such advertisements is manifestly to direct the attention of the young woman to her sexual organs, to exaggerate the importance of trifling abnormalities incident to civilized life, to awaken the sexual instinct and at the same time to arouse forebodings as to the existence of some physical obstacle to marriage and reproduction so that nostrums may be sold. Although actual indecency of phraseology is studiously avoided, the moral tendencies of such literature are decidedly injurious. The ideal of the last generation of ignorance as innocence was not a wise one, and girls should be instructed in the physiology and hygiene of the pelvic organs. But the instructor should be the mother, teacher or some other intimate and mature female friend, and ignorance is preferable to knowledge obtained from a mercenary charlatan.

The climax of indecency is reached with the proclamation of the abortifacient nostrum. Pennyroyal seems to be the favorite catch-word, and women are informed that the pill or powder in question is prompt, sure and safe, and this statement is often coupled with the sly intimation that it should not be taken by women who are pregnant, since it will produce abortion. In many, if not most cases, the women who buy these nostrums desire the discharge of something more than blood from the uterus and the advertiser, without direct allusion to criminal therapeutics, is calculating not only on the patronage of women already in trouble but of those who will yield more readily to temptation if the danger of pregnancy be eliminated. Such advertisements as these last are illegal in Illinois according to a law passed in 1872, which has never been enforced, since its enforcement would curtail the income of the sensation mongers. It is rather a singular commentary on the alleged refining influence of women physicians on the medical profession that the *Women's Medical Journal* should admit to its advertising columns the electroplate of a most suggestively-worded "specific" emmenagogue nostrum.

Dermatology and Syphilology.

Chapped Skin.—

℞ Lanolin	℥iij.
Glycerin	℥iv.
Boric Acid	℥iss.
Salol	℥i.
Hoffman's anodyne	℥v.
Menthol	gr. xv.
Oil of citronella	℥liij.

—*Journal des Praticiens*, February 22, 1896.

Excessive Sweating of the Feet.—

℞ Alummol,	
Aristol	āā 4 parts.
Starch	15 parts.

Dust into the socks.

—*Therapeutische Wochenschrift*.

Dusting Powder for Eczema.—

℞ Pulv. amyli	℥i.
Pulv. zinci oxidi	℥ij.
Pulv. camphoræ	℥i.

M. S.—For external use.

—HYDE.

Powder for Genital Herpes.

℞ Powdered alum.	
Powdered starch	āā 10 gm.

M. For external use.

The balano-preputial region is dusted over with this powder. Recovery is usually promptly obtained.—E. GAUCHER.

The above formulæ are gleaned from the *Medical Record*.

Acute Syphilitic Myelitis.—V. Starck records the following case (*British Med. Jour.*): A woman, aged 27, suffered from general symptoms seven or eight weeks after contracting syphilis. Six months later she was again under treatment for tertiary manifestations. Twelve months after the infection the nervous symptoms began with pains in the back and legs. Within fourteen days the clinical picture of a lumbar myelitis was developed. There was very considerable motor and sensory paralysis in the legs, paralysis of the rectum and bladder, and an absence of the knee-jerks. A bedsore rapidly formed. There was a moderate

degenerative atrophy of the muscles and a partial reaction of degeneration. The superficial reflexes were diminished. After three and a half months all the symptoms disappeared, and the legs completely recovered. The treatment consisted of injections of salicylate of mercury (o. 1. g.) twice a week, and the use of iodide of potassium. There was also present a peripheral facial paralysis of uncertain origin. The author thinks that the previous history of syphilis with active manifestations, together with the improvement under antisyphilitic treatment, shows that the cord affection was syphilitic in nature. A considerable number of cases have been reported of a rapidly oncoming paraplegia occurring in the first year of syphilis, usually accompanied by marked sensory disturbances and bladder and rectum paralysis. The above case differs from many of the others by the exceptionally favorable termination. Such a complete recovery is unusual. Occasionally death has occurred from pyelo-nephritis, etc. The author thinks that the spinal meninges were here unaffected. Whether the good results obtained by the anti-syphilitic treatment could be attributed to the injections cannot be stated with certainty. The author has exclusively used mercurial injections for four years with good results and no drawbacks. For outpatient practice these injections are very convenient.

Treatment of Lupus with Maragliano's Tubercle-antitoxin Serum.—Terrill has used this serum on two young subjects, one of whom had lupus of the foot and the other lupus of the hand (*N. Y. Med. Journal*). The first one received, in all, a hundred and seven cubic centimetres of the serum (at first one cubic centimetre every second day, then five cubic centimetres every third day); the second got twenty-five cubic centimetres (five every third day), and was also treated topically with the serum. In each case the result was very gratifying, although a perfect cure did not take place. The infiltration subsided, and the joints became movable. The local application of the serum was founded on its direct destructive action on the bacillus, as was shown by the healing of a tuberculous anal fistula after local injections of it.

Hyperidrosis.—The *Revue internationale de médecine et de chirurgie* states that M. Henser has employed the following mixture with successful results:

R	Formic acid,	
	Chloral	āā 5 parts.
	Alcohol	89 parts.
	Balsam of Peru	1 part.

M.

This mixture is applied with a tampon of cotton. In generalized hyperidrosis it is well to spray the skin with it. When the localized sweating is particularly rebellious, M. Henser adds trichloracetic acid to this mixture in the proportion of one per cent. For combating sweating of the feet in soldiers, he recommends the employment of a one or two per cent. solution of trichloracetic acid. Unfortunately, it has the inconvenience of changing the color of any material with which it comes in contact.

Treatment of Syphilis by Animal Serum.—Kollmann, in 1890, was the first to make use of the serum of animals in syphilis, using the serum of sheep, calves, dogs and rabbits, animals that have been proved refractory to the disease (*Boston Med. and Surg. Journal*). His results were negative, and therefore not published. In 1892 Tommasoli recorded a brilliant success in six cases of recent syphilis, treated by the injection of lamb's serum. Héricourt and Richet have recorded favorable results, while others have been totally unsuccessful.

Experiments were made on twelve patients at Lewin's clinic in the Charité at Berlin, and the results are described in Mueller-Kannberg's paper. The serum was obtained from horses, a source that had never before been made use of in syphilis. As a preliminary trial two patients were given an injection of five cubic centimetres of the serum. Their general condition remained unaltered, but five days later each experienced an attack of urticaria which lasted seventeen days. Another patient treated in the same way developed such grave symptoms that no further trial was made. In the remaining cases no positive influence on the syphilitic process could be claimed. Urticaria was almost universally produced, sometimes of an exceedingly annoying and obstinate type. Some of the patients received at intervals as many as four or five injections without effect upon the disease. The writer remarks, in conclusion, that no encouraging deduction can be drawn from these experiments, which resulted in much the same way as those of Kollmann. The urine in these cases remained normal.

Bullous Quinine Dermatitis.—The occasional occurrence of drug eruptions in susceptible subjects should always be borne in mind in determining the origin of any given instance of skin disorder (*Charlotte Med. Jour.*). Illustrative of this principle is a case described by Dr. James C. Johnston in the July number of the *Journal of Cutaneous and Genito-Urinary Diseases*.

The patient, a middle-aged German, had taken two doses of fifteen drops each of compound tincture of cinchona in a tonic mixture. Two days later he came to the hospital complaining of intolerable pruritus, with beginning vesiculation of the face. The whole surface of his body was covered with a scarlatiniform rash; the mucous membranes were not affected at any time. In two days after this many of the vesicles had become bullæ, particularly on the palms and soles. About half a pint of serum was taken from the larger lesions. Exudation continued for several days, complete repair not taking place until five or six weeks. The treatment in the early stage consisted in the use of astringent lotions of calamine and zinc and black wash; diachylon and zinc ointments were applied after the bullæ had disappeared. The same patient suffered in the previous year from a vesicular eruption occasioned by the ingestion of a couple of two-grain quinine pills.

Treatment of Intertrigo with Chromic Acid.—Brault, having obtained good results with the use of chromic acid in hyperidrosis of the feet, has treated all of his cases of intertrigo for one year with applications of the acid with good results (*Med. and Surg. Bull.*). Where there is too much irritation it is preferable to previously make a few moist applications of mild antiseptics. When such is not the case the chromic acid treatment can be commenced at once. After washing the parts carefully they are dried and painted with a 3-per-cent. solution. It is sufficient to follow with an inert powder. After an interval of three or four days the application is repeated; two or three paintings are required. This method not only cures intertrigo very rapidly, but also prevents its return and produces a sort of hardening of the integument.

Treatment of Syphilis with Mercuric Iodide Hemol.—As this is the only preparation that contains iron, its use is indicated whenever a tonic action is desired (*J. A. M. A.*) It is

effective and simple, although no internal medication takes the place of frictions and injections. Rille reports thirty-seven cases he has treated, and eighteen from Neumann's practice. A few slight transient inconveniences followed its use occasionally, but they were less than with any other internal medication. He administered it as follows: 10 grams Kobert's mercuric iodide hemol; 0.8 decigrams opium powder, and q. s. licorice powder; made into fifty pills; taken two or three times a day, after meals. He recommends it for anemic and scrofulous cases of syphilis.

Dermatitis from the Röntgen Rays.—That the action of the Röntgen rays will produce alopecia has, we believe, been reported; but that it will produce a severe dermatitis, and that without causing pain or any symptoms to indicate trouble, we have failed to find mentioned in any literature on the subject, says the *Western Medical Reporter*. The members of the Nebraska State Medical Society who were in attendance at the annual meeting last May, in Lincoln, and who attended the lecture by Professor Brace at the university on the X ray and its practical application, will remember the patient who had received a gunshot wound in the head and who was the subject of one of the experiments. Attempts were made to locate the bullet, but resulted in failure. As a sequence of this experiment, however, the patient suffered the entire loss of hair on the side of the head which was exposed to the rays. It has as yet failed to reappear.

The other case which we desire to report is that of an attorney of this city who was badly maltreated by footpads last January. The result of the ill-usage, besides many bad bruises otherwise, was an injury to the shoulder which did not improve as it was expected to do. It was finally decided to obtain a skiagraph of the shoulder joint, and this was attempted about ten weeks ago. The seance lasted two hours and a half. During the sitting the patient complained of no pain, no burning sensation, and no inconvenience whatever, except the tiresomeness of being so long in one position. In about a week afterwards he began to feel a slight burning sensation, and on examining the back of his shoulder where the rays had been concentrated he noticed a slight redness, an erythema. This gradually increased in intensity, so that in four or five days afterwards he consulted his physician. That gentleman informs us that by that time the

dermatitis had resulted in such profound trophic changes that in appearance the wound looked like a severe burn of the second degree, covering a space as large as two hands. For three weeks it seemed almost impossible to control the inflammatory action that was set up, and now, two months after it was first noticed, there is an irregular space, three by four inches in extent, not yet covered by skin.

The strange thing about this case is the fact that there was no indication of trouble at the time the patient was subjected to the rays, and there was no suspicion that any injury would result till at least a week afterwards. The extreme length of time the seance lasted may have been and probably was the cause of the dermatitis, but at the same time the conclusion must be reached that there is a subtle influence or action in the Röntgen rays that is not yet appreciated.

O-D.

Ammonia in Alcoholism.—Dr. Baratier recommends, in *El Siglo Medico*, the addition of ammonia to wine or liquor in order to produce a distaste for alcoholic beverages. After a few doses the disgust to the mixture becomes so intense that even the sight or smell of wine is unpleasant.

Quarantine has been finally abolished in the British Islands. For many years there has really been none, yet two vessels with a full staff of medical officers were kept on the south coast of England. There was nothing to do at the station, but it was maintained from year to year, apparently because it never occurred to any one in Parliament to do away with it.

Medical Society of the State of New York.—The business committee of the Medical Society of the State of New York, recently appointed, consists of the following members: Dr. Seneca D. Powell, 12 west Fortieth street, New York, chairman; Dr. Willis G. Macdonald, 27 Eagle street, Albany, and Dr. Ernest Wende, 471 Delaware avenue, Buffalo. Communications regarding papers to be presented at the next meeting of the society, to be held at Albany, January 26th-28th next, may be addressed to either member of the committee or to the president of the society, Dr. James D. Spencer, of Watertown.

Medical Progress.

THERAPEUTICS.

Migraine.—The following formulæ are collected in the *Medical Record*:

R Pure chloroform,
 Alcohol.....āā ʒij.
 Morphine.....gr. iv.
 Syrup.....ʒj.
 Water.....ʒiv.

M.

Sig. Teaspoonful every half-hour till pain is relieved.

—*Journal des Praticiens*

R Caffeine citrate gr. xx.
 Phenacetin gr. xxx.
 White sugar.....gr. xv.

Sufficient for ten capsules. One every three or four hours during the period of the attack.

—*Indian Lancet*.

Diminish the hyperesthesia of the painful area by a spray of some local anesthetic, and immediately afterwards practice compression of both temporal arteries by means of rings of cork held in place by a gauze bandage. Administer the following in four doses at intervals of two hours.

R Antipyrin.....gr. viiss.
 Sparteine sulphate.....gr. ⅓.
 Caffeine citrategr. iss.

If there is gastric derangement the above may be administered by enema.—ARITMAN, *Presse Médicale*.

Sweating in Phthisis.—Dr. Joguet strongly recommends tellurate of soda for the sweating of phthysical patients, and administers it to his patients as follows:

R Tellurate of soda.....gr. ij. to iv.
 Proof spirits.....ʒij.

M.

Sig. A teaspoonful morning and evening in a wine-glass of sweetened water during three successive days.

The only drawback to its employment is the garlic taste it gives to the breath, which, however, disappears on the cessation of the drug.

Gastro-Enteritis in Children.—

(ONE YEAR.)

℞ Lactic acid	3ss.
Water	3ij.

M.

Sig. A teaspoonful after each little repast.

Morning and evening a warm bath and an enema of a decoction of linseed.

(TWO TO FIVE YEARS.)

℞ Lactic acid	3j.
Laudanum	℥j.
Rum	3j.
Syrup of lemons	3ij.
Water	3xj.

M.

Sig. As a drink during the day.

Hypodermatic Treatment of Tuberculosis.—Dr. N. Gilbert publishes the following in the *Medical Week*:

℞ Beechwood creosote	25 gm.
Camphor	15 gm.
Aristol	10 gm.
Eucalyptol	30 gm.
Sterilized neat-foot oil	ad 250 cc.

M.

Sig. For hypodermatic injection.

One cubic centimetre (sixteen minims) of this solution contains one-tenth gramme (one-and-one-half grain) of creosote.

Tannoform.—In *La Belgique Médicale* Drs. G. de Buch and L. de Moor describe the therapeutic effects of tannoform, which is precipitated from a solution of tannin in formaldehyde by adding hydrochloric acid. The authors have used it externally in the treatment of old indolent ulcers, and internally in infantile diarrhea. It is said to combine the astringent effects of tannin with the antiseptic and drying properties of formaldehyde.

Treatment of Actinomycosis.—Jürinka related the course and treatment at the Prague meeting of actinomycosis in man (*Med. Press*). The iodide of potassium appears to be the only drug that can be relied on for obtaining successful results, although its action cannot be clearly explained. Three cases were selected from Wölfler's wards as examples, two of these having actinomycosis of the jaw, the other being perityphilitic actinomycosis. The treatment usually extends over two or three

months, with doses of the iodide ranging from two to four grammes per day. The local treatment consisted in splitting the mycotic mass, but no effort was made to scrape or clean out the morbid growth. According to the experiments of Jürinka the action of the iodide of potassium is not a direct destructive agent on the growth, but rather inhibits the vitality in the morbid process.

The Treatment of Neuralgic and Rheumatic Affections.

—Dr. D. S. Maddox says (*Medical Summary*) that, in spite of extensive researches into the functions of the nervous system, we have not yet succeeded in obtaining precise and certain data concerning neuralgia. Austie thus defines neuralgia:

“A disease of the nervous system manifesting itself by pains which appear to follow the course of certain nerves, ramifying sometimes into a few, sometimes into all the terminal branches of those nerves.” What is of importance for us to know from its bearing on treatment, is the etiology and pathology of this affection. In order that the functions of the nervous system may be normally performed two conditions must exist, viz.:

1. The integrity of the nervous system itself.
2. The integrity of the circulatory system.

Another affection, whose primal cause is often a matter of as much doubt as is that of neuralgia, is chronic rheumatism. This is a term which is loosely applied to many ailments not really of rheumatic origin. Almost any obscure and obstinate pain which is not traceable to some other agency is apt to be attributed to chronic rheumatism. Under this head then there come to be ranked many aches and ailments which not being of rheumatic origin have no claim to its title. Chronic rheumatism properly so called is a milder form of the subacute variety in which there is not sufficient local inflammation to prostrate the patient or to raise the temperature. Just as the acute runs into the subacute, so the subacute runs into the chronic by the insensible gradations. It also exists independently of them. The malady is characterized by the occurrence of pains obstinate in nature, and sometimes shifting in character, affecting the joints, muscles and fibrous capsules. The affected parts may be somewhat tender to the touch, but are not, as a rule, distinctly swollen. The pain is increased by damp and cold. It often disappears in fair and returns in wet weather. It is a troublesome

ailment which frequently lasts off and on for months, even years. During its continuance there is often laid the foundation of future cardiac troubles. In the age, in the personal and family history of the patient, in the shifting character of the pains, and in the occasional slight rise of the temperature we have the best means of distinguishing true chronic rheumatism from the other ailments, gouty, arthritic and neuralgic, with which it is often confounded. The treatment of neuralgic and rheumatic affections is both constitutional and local. For some time now I have been using the Tongaline preparations in the treatment of these maladies and the results so far have been most gratifying.

Serum Treatment of Ozena.—Serafino and Della Vedova (*Arch. Ital. de Biol.*), have made bacteriological investigations of 63 cases of ozena. The most important of previous researches on the subject were those of Abel, who concluded that the disease was due to the bacillus mucosus ozenæ of the same family as the pneumo-bacillus, but differentiable from it; it is found in the secretion during all stages of the process, but never penetrates into the mucous membrane. The authors confirm his views as to the constancy of this bacillus, but hold that it is not the veritable cause of the disease, which they attribute to another micro-organism found by them in the substance of the mucous membrane itself. This is a small bacillus, which colors readily with gentian violet or by the Gram-Weigert method, and often shows more deeply-stained granules in its substance. It is best cultivated on coagulated serum, upon which it shows in 24 to 36 hours little greyish elevated colonies, frequently elevated, and consisting of long bacilli staining readily when fresh. It is not easily detected in sections of the mucous membrane, but may be readily demonstrated in scrapings from the latter. In biological characteristics this bacillus belongs to the same family as the diphtheria bacillus, the pseudo-diphtheria bacillus, and the xerosis bacillus of Neisser; the authors enumerate the points of resemblance and distinction between these different forms. The genetic resemblance induced them to try the effect of anti-diphtheria serum in 32 cases of ozena in which the bacteriological diagnosis had been made. Of these, 16 were completely cured, 7 showed great improvement, and were at the time of writing nearly well, 4 were markedly better, and the remaining 5 showed a slight amelioration.

“**Eisen-Hunger.**”—Physiological and clinical tests prove that ferratin supplies the needed iron *to nourish the blood*—and hence *the system*.

On page 341 of Prof. Schmiedeberg's “*Arzneimitellehre*,” (latest edition) this eminent pharmacologist states: “The fact and effect of a craving for iron (eisen-hunger) can be experimentally proved on animals. A strong, frisky dog, after a moderate loss of blood, was fed for five months on pure milk only, and gradually became so weak that he refused further nourishment, became reduced in body-weight, tottered when on his legs, and finally was at the point of death. At this stage 1 gramme of ferratin was added to the milk per day; the dog ate this with ravenous appetite, and within 14 days had regained his weight and general condition to nearly equal the normal strength and activity possessed before commencement of the experiment.”

Ferratin in 8 grain doses three times daily, was recommended by Germain Sée, the late distinguished French therapist, for “those suffering from anemia from hard work, though apparently in good health; those, of both sexes, affected with chlorosis; those weakened by too rapid growth and puberty; those fatigued by study; and, in short, all in whom a diminution of red blood corpuscles had ensued, due no matter to what causes.”

MEDICINE.

Acrocyanosis.—According to M. Crocq, says a writer in the *Journal des praticiens*, this clinical cyndrome begins imperceptibly. The patient notices that his hands and feet are becoming of a violet color, which grows lighter towards the wrists and the dorsal surface of the feet. The palmar and plantar surfaces are not so blue, but rather reddish in tint. The backs of the hands and of the feet are cold and dry, while their palmar and plantar surfaces are covered with a profuse perspiration (*Ex.*). Pressure causes a white spot which disappears slowly. Slight shooting pains are felt in the extremities.

M. Crocq has observed two cases of acrocyanosis in hysterical subjects. He distinguishes this affection from Raynaud's disease and from Charcot's blue œdema, as the acrocyanosis is permanent. It gives rise to slight pains, it is not ordinarily accompanied by local syncope, it does not cause the appearance of blisters or gangrene, and it does not abolish sensibility. There

is no oedema, paralysis, paresis, or contraction. M. Crocq seems to think that acrocyanosis is an hysterical vasomotor symptom.

Etiology of Serous Pleuritic Effusion.—In the *Zeitschrift f. klinische Medicin* the cause and nature of serous effusions in the pleural cavity are thoroughly discussed. (*Med. News*). The author of the article, Aschoff, placed before himself three questions:

1. Is every idiopathic pleurisy, *i. e.*, a serous pleuritis without known cause, tubercular in its nature?
2. Is there such a thing as an acute isolated rheumatic pleurisy, which is to be looked upon as equivalent to a preceding acute attack of rheumatic arthritis?
3. Do serous pleuritic effusions ever contain pyogenic organisms without later becoming purulent?

Bacteriological examinations were made of two hundred serous exudates, with the following results:

Serous effusions are nearly always free from pus-producing micro-organisms. If the latter are present, the exudate will become purulent, except possibly in exudates containing pneumococci. Purulent pleuritic effusions sometimes heal completely without operation.

The occurrence of isolated rheumatic pleuritis is questionable—at least it must be very rare. The pleuritic effusions occurring in rheumatism are almost invariably the result of a cardiac lesion. No special benefit has been observed by the administration of salicylic acid.

The so-called idiopathic effusions are almost always tubercular. They may, however, disappear perfectly.

The Influence of Acute Specific Fevers upon Leukemia.
—Thorsch (*Wien. klin. Woch.*) records the clinical history of a patient with splenic and lymphatic leukemia, who died of an intercurrent attack of croupous pneumonia. As had already been observed by others, the febrile period was associated with a rapid decrease in size of the lymphatic glands, spleen and liver. Thorsch's observations bear more particularly upon the condition of the blood. The pneumonia began with a rigor, from the onset of which to the fifth day the number of leucocytes fell steadily from 140,000 to 43,500 per c.cm. The disease then began to spread rapidly, and from that time till the patient's

death (three days later) the number of leucocytes increased, reaching at the last 172,000. The changes are comparable with those observed in malignant tumors, under the influence of erysipelas serum, and to some extent support the view of certain French observers as to the analogy of leukemia with malignant disease. In addition to these quantitative variations, Thorsch observed important quantitative differences in the leucocytes. These consisted in a relative diminution of the lymphocytes and a corresponding increase in the multinuclear forms. Thus, whereas on the day of the rigor the multinuclear leucocytes formed only 1 per cent. of the total before death, their proportion had reached 25 per cent., the increase being most notable on the last day of life. The author conjectures that this may have been due to (and this applies also to the terminal increase of the total leucocytes) a sudden overflow from the blood-vessels of the lymphatic glands, which were found at the necropsy to contain far fewer white corpuscles than observations made during life seemed to indicate.

Two Cases of Hydrophobia.—Dr. W. Moser reports the following interesting cases in the *Medical Record*:

CASE I.—The boy was bitten on the left lower eyelid by a dog. The wound was treated at St. Catharine's Dispensary until completely healed. The Pasteur treatment was not instituted, as the dog, which was a stray cur, was not supposed to be afflicted with rabies. Seven weeks after the date of the bite the boy was admitted into St. Catharine's Hospital, service of Dr. Moitrier, with the following symptoms: great muscular prostration, great excitability, difficulty in swallowing, especially water. There was no fear of water (hydrophobia) *per se*, as the boy could look at a glass of water without showing fear, but as soon as the glass of water was taken from the table and brought to him with the request that he drink it, he would become terror-stricken, falling, if the request for him to drink be urged, into general convulsions. Rectal enemata of water produced no convulsions. Hallucinations occurred at times, the most frequent being that he was being bitten by dogs. Hemiplegia on the injured side was noted. Œdema of the lungs set in on the second day and was the immediate cause of the boy's death. The autopsy, performed by me, showed œdema of the lungs and an acute inflammation of

the meninges of the brain and cord. All the other organs were normal, excepting a few punctate hemorrhages on the pons Varolii.

CASE II.—A boy, four years old, was bitten on the left hand by a dog. The wound was cauterized and treated at the boy's home. Five weeks from the date of bite the boy was carried by his father to St. Catharine's Hospital, in the service of Dr. Moitrier. He then presented the following symptoms: great muscular prostration; the difficulty in swallowing water was so great as to cause a peculiar choking sensation at each attempt; hallucinations occurred, the most frequent being that dogs were biting him. The boy had only a few general clonic convulsions. Hemiplegia occurred on the left, the injured side. Œdema of the lungs set in on the second day, to which the boy succumbed.

Remarks.—We note, in reviewing these two cases, the diagnosis of which was confirmed by Drs. Gibier and Labadie, the following peculiarities in their symptomatology:

1. Both boys were under the impression that dogs were biting them.
2. The singular fact that both should have had hemiplegia on the bitten side. Dr. Fuhs concurred in the opinion that hemiplegia was on the left side.
3. That both boys died in two days from œdema of the lungs.
4. We note the period of incubation—seven weeks in the one case, five in the other.

Nephritic Sarcoma.—An author records a case of bilateral infiltrated nephritic sarcoma in a child, æt. 2½ years, who had been complaining during the last six months (*Med. Press and Circular*). On examination both kidneys were found to be distinctly enlarged, the left reaching to the spine, but no fluctuation, while in the region of the parotid gland a large tumor about the size of a walnut was found. It was then presumed that the case was one of multilocular cysts with the possibility of a sarcoma in the left kidney and compensatory hypertrophy in the right. With this diagnosis an exploration was made in the left side by a lumbar incision, when it was discovered that the kidney was five times its usual size. An aspirator was inserted, but with negative results. An incision was then made into the tissue which seemed to be a simple hypertrophy, but a part of the organ was removed for microscopic purposes, and the incision carefully closed, which rapidly healed, but the child died three months

later. The microscopic examination revealed an infiltrated round-cell sarcoma. At the post-mortem both kidneys were found to be 18 ctm. long and 10 ctm. broad. The tissue of a greyish-red color, without the apparent kidney structure. The other organs were all healthy. The microscopic examination of both organs revealed the same interstitial tissue with round-cell infiltration. The opinion formed from the facts of examination was that it was a diffuse infiltrated round-cell sarcoma in combination with a glomerule-nephritis. The microscopic examination of the tumor in the parotid gland revealed a similar round-cell infiltration with interstitial tissue.

In the discussion that followed, Tscherning related a similar case in an adult, where both kidneys, parotid gland, testes, glands of the throat, liver and spleen, had the round-cell infiltration.

Phthisis.—Dr. Tidey arrives at the following conclusions (*Brit. Med. Jour.*): 1. In early phthisis (catarrhal stage) to give comparative rest and relaxation to affected lung tissue. 2. In the stage of consolidation, to secure the same results, thereby limiting the risk of extension, and to promote elimination of the disease-products by improving the circulation in and about the diseased area, and to facilitate expectoration. 3. In the stage of cavitation, to promote closing of cavities by directing healthy lung to encroach on the diseased area instead of relying on natural processes of cicatrization. 4. Diminished tendency to hemorrhage by reduced tension on vessels and cicatricial traction on vessel walls. 5. The ultimate object to obtain a smaller thoracic cavity filled with healthy lung instead of an enlarged thoracic cavity partly filled with diseased lung.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Stable Picro-Carmine Solution.—A satisfactory picro-carmine, yielding a solution that has been proved to keep good for five years, may be made as follows (*Med. and Surg. Bull.*):

Pure carmine is dissolved in a mixture of ammonia water 1 part by volume and water 4 parts, care being taken to keep the carmine in slight excess. After standing for two days filter the solution, and expose it until a precipitate begins to form, protecting it from dust meanwhile. Again filter, and add concentrated solution of picric acid (? to excess), then agitate and set aside for 24 hours, when a third filtration must be followed

by the addition of 1 part of chloral hydrate to every 1,000 parts of solution. At the end of a week filter for the last time, and immediately bottle off in small, glass-stoppered vials.

Absorption of Poisons.—After a review of the different statements from the literature upon this subject, J. v. Kossa (*Arch. f. exp. Path. u. Pharmacol.*) describes his experiments upon rabbits. After cooling the ears of these animals by water at 7° C. a few minutes before the injection, even the most violent poisons (cyanide of potash, strychnia, picrotoxin) no longer caused the slightest symptom of intoxication. Apparently, absorption of these poisons by the cooled ear is so prolonged that excretion can keep equal pace with it; consequently, the poison content of the tissue fluids never attains a degree sufficient for the production of toxic symptoms. Practically, the author thinks (*Ex.*) the treatment of snake bites, bites of rabid dogs, and stings of poisonous insects by means of cold applications, with the view of retarding absorption, is highly to be commended.

Leucocytes and the Bactericidal Action of Blood.—Hahn (*Arch. f. Hyg.*) has investigated the action of blood-serum and of pleural exudation of rabbits. The leucocytes in the latter were destroyed by freezing. He found that the exudation had a more powerful bactericidal action upon *staphylococcus pyogenes aureus* and *bacillus typhosus* than the blood-serum or the defibrinated blood of the same animal, and since the leucocytes were destroyed the action cannot depend upon phagocytosis in Metchnikoff's sense of the term. The author made experiments with Lichenfeld's histon-blood, in which the leucocytes remain unaffected, in order to determine whether the bactericidal power depends upon the destruction of leucocytes or upon substances secreted by the leucocytes whilst still alive. He came to the conclusion that the latter is the more probable explanation.

New Method of Preserving Specimens with the Original Coloring.—Some preparations a year old were exhibited recently at the Académie de Médecine by Melnikoff-Rasvedenkoff of Moscow, which appeared as fresh and perfect in their coloring as if they were only a few hours old (*Jour. Am. Med. Ass.*) According to this new method the fresh organ is placed in formalin, an aqueous solution of formaldehyde at 40 per cent., which toughens and discolors the tissues. At the end of twenty-

four hours the piece is transferred to alcohol at 95 degrees, and left six to eight hours. In this bath the organs recover their previous coloring and the blood a tint as if the vessels had been freshly filled. The piece is then placed in an aqueous glycerin solution of potassium acetate. (Acetate 30, glycerin 60, and dist. water 100.) This sets the color permanently. After this it is removed to the final preserving fluid, made by boiling together 100 grammes of gelatin and 600 grammes of water, to which are added 350 cubic centimeters of solution of potassium acetate. After filtering this through a double filter, 700 cubic centimeters of glycerin are added, and the process is complete.

DISEASES OF WOMEN AND CHILDREN.

Congenital Umbilical Tumor.—Meickel reports (*Med. Standard*) the case of a female child whose umbilical cord was wrapped once around the neck and once around the body, presented upon the permanent portion of the cord a red, moderately rough and hard tumor. He took this for a sarcoma, and removed it by means of the thermocautery one day after birth. During the operation the peritoneal cavity was opened, but healed quickly. The child died two weeks later of broncho-pneumonia. Autopsy showed that the abdominal wound was in perfectly normal condition. The tumor was a telangiectatic myxosarcoma, originating from the skin, and not from Wharton's jelly.

Ectopic Pregnancy.—Dr. MacMonagle (*Southern California Practitioner*) from a review of the literature on this subject and from his own experience draws the following conclusions (*Med. Rec.*): 1. A large majority of ectopic gestations begin in some part of the tube. 2. Pain is an important and almost constant symptom. 3. A growing ovum must burst the tube. 4. Rupture must take place into either the peritoneal cavity or the broad ligament. 5. When discovered, ectopic pregnancy should be operated on as soon as arrangements can be made for a careful and perfectly aseptic operation. 6. An exploratory incision is justified when there is a reasonable assurance of ectopic pregnancy. 7. Rupture into the peritoneal cavity, with hemorrhage demands operation at once. 8. The suprapubic operation is the best in a large majority of cases. 9. The vaginal operation should be chosen in the cases in which one feels sure

the mass is well walled off from above and can be easily reached from the vagina. 10. In doing the vaginal operation one should be prepared to complete it from above in case of complications. 11. Early operation and removal of the tube, sac, and contents will give the best results.

Cyst of Anterior Vaginal Wall.—Vineberg (*Amer. Gynec. and Obstet. Journ.*) operated, during pregnancy, for the removal of a cyst as large as a hen's egg. It closely resembled a cystocle, and contained thick colloid material. It required free dissection, and there was a broad, thin vascular pedicle connecting it with the bladder, which required ligature in segments. An extensive raw surface was left, with considerable redundancy in the vaginal wall. A portion of each vaginal flap was resected, the area of denudation diminished by a deep, continuous catgut suture, and the vaginal flaps united by a similar suture. The patient, 30 years of age and three months pregnant, was delivered at term.

Operation for Atresia Vaginæ.—Mackenrodt (*Centralbl. f. Gyn.*, No. 21, 1896) points out that attempts to keep the artificial vagina open by tampons after operations for this condition are seldom permanently, if even temporarily, successful, and states that he has recently in two cases successfully substituted a vaginal wall by transplantation of flaps obtained in operations for prolapse on otherwise healthy women. The new canal is prepared and plugged with iodoform gauze till its inner surface is covered with healthy granulations, and is then lined either by several single flaps which are kept in position by a tampon, or a lining is formed by sewing a number of flaps together round a Cusco speculum, and introduced with its wounded surface external into the granulating canal, and fixed by a tampon, which in either case is not removed for eight or ten days.

Uterine Cancer.—Dr. Kessler believes (*Record*) that the diagnosis of cancer is not very difficult in the majority of cases. The text-books lead us to believe that it is always associated with cachexia; the suffering expression of the face, very frequent hemorrhages, fetid discharges, etc., are not always present. But a serous discharge, a bleeding between menstrual periods, and particularly a hemorrhage after the menopause, should make one very suspicious of malignant disease. He deprecates the practice of giving ergot or styptics in uterine hemorrhages when one

suspects carcinoma, because while using these drugs the disease is progressing and valuable time is lost.

SURGERY.

The Treatment of Ileus.—As a result of his investigations, Naunyn gives relatively extract rules for the treatment of ileus, as follows (*Med. News*):

1. The prognosis of the operative treatment of ileus is most favorable on the first and second day of its existence; on the third day it is markedly worse.

2. The best results (seventy-two per cent. of recoveries) are obtained in those cases in which obstruction is due to a rupture, not including cases of strangulated hernia.

3. In primary peritonitis this condition, and not the resulting ileus, must determine the operation.

4. (a) In chronic intestinal stenosis the necessity for an immediate operation does not often arise. (b) The seat of obstruction can usually be made out exactly if it is located in the duodenum, descending colon, sigmoid flexure, or rectum; otherwise it can only be guessed at. (c) Strangulation can often be diagnosed, and demands an immediate operation.

5. In three classes of ileus an exact diagnosis is possible. (a) Ileus from foreign bodies, *e.g.*, gall-stone; (b) valvulus of the sigmoid flexure; (c) intussusception.

Of the treatment other than surgical, Naunyn says:

(1) Avoid cathartics. (2) Far better is the employment of large enemata of water, or injections of oil, five to sixteen ounces. Injections of air are less serviceable. (3) Opiates should not be given in large doses. (4) Washing out the stomach is advisable whenever there is fecal vomiting, or the stomach is overfull. (5) Food and drink should be reduced to the minimum. (6) Puncture of distended intestinal coils is of doubtful value.

Cysticotomy, the New Operation.—In the *Progres Med.*, Moral Baudouin describes what he calls "the new operation with a future," cysticotomy, which is for the cystic duct what choledochotomy is for the common bile duct, and requires the same technique (*Jour. A. M. A.*). Only one of the ten observations reported resulted fatally, and that was accompanied by cholecys-

tecotomy. The indication is a large calculus engaged in the cystic duct, which it is impossible to dislodge by manipulation, or to crush without injury to the walls of the duct. The retention is sometimes due to a stricture. The abdomen opened, adhesences released, the duct well in view, the calculus under the finger, the cystic duct is slit lengthwise above the calculus, and the opening made large enough to extract it without tearing the edges, as the walls are generally inflamed and easily lacerated. The only question is whether to drain or not in a simple cysticotomy, when the adhesences have not been numerous; of course a complicated operation requires draining, and even tamponing. The operation is usually simpler than choledochotomy on account of the more accessible position of the duct. The operation is new to France, the observations being gathered from English, German and Belgian sources.

Cocaine in Surgery.—The following appears in one of our exchanges: 1. The use of cocaine should not be abandoned because its irrational employment has produced deleterious results. 2. Always make a thorough physical examination of the patient before injecting the drug. 3. It should not be used in cases showing organic disease of the brain, heart, lungs, or kidneys, or in persons of neurotic diathesis. 4. Children bear it fully as well as adults. 5. The patient should always be placed in a recumbent position prior to its employment. 6. Constriction should be used whenever possible to limit the action of the drug to a desired area. 7. Use a freshly-prepared solution for each case. 8. Distilled water should always be employed, to which phenic, salicylic, or boric acid should be added. 9. A two-per-cent. solution has a better effect, and is safer than solutions of greater strength. 10. Never inject a larger quantity than one and one-eighth grains when no constriction is used. 11. About the head, face, and neck, one-third of a grain should never be exceeded. 12. When constriction is possible, the dose may be as large as two grains. 13. Every slight physiological effect is not necessarily to be taken as cause for alarm. 14. Cocaine does have effect upon inflamed tissues. 15. In case alarming symptoms occur, use amyl nitrite, strychnine, digitalis, ether, or ammonia.

ORTHOPEDIC SURGERY.

The Use of Dry Heat of High Temperature in the Treatment of Chronic Joint Affections.—At the same meeting Dr. Wm. E. Wirt, of Cleveland, described the apparatus which he employed. It consists of a copper drum twelve inches long and nine inches in diameter, fitted at each end with a wooden ring and a hood of thick rubber. Having protected the back of the knee with cotton, it is enclosed in the apparatus, and heat applied to the outside by means of a Bunsen burner. Most patients would tolerate a temperature between 250° and 300° F., provided three holes were made in the drum to secure proper ventilation and so keep the air dry. This treatment gives an immediate relief to pain and increases temporarily the mobility of the joint.

The Anterior Transverse Arch of the Foot.—At the recent meeting of the American Orthopedic Association, Dr. Joel E. Goldthwait, of Boston, said that the cases of abnormality of the anterior transverse arch of the foot might be divided into two groups (*Boston Med. and Surg. Jour.*):

1. The relaxed form.

2. The rigid type with distinct bony change. The patient stated that the foot was becoming wider, and examination showed a callosity under the head of the second, third or fourth metatarsal bone. The speaker thought that improper shoeing was largely responsible for the condition.

In the treatment of the relaxed cases, it was most important to strengthen the front part of the foot by appropriate balancing exercises, and to relieve the strain on the ligaments and muscles by the application of a snugly fitting bandage just behind the head of the first metatarsal bone. Immediate relief would follow the application of a pad of felt so as to make pressure just back of the heads of the second and third metatarsal bones.

Dr. Ketch referred to a case in which the gouty diathesis, rather than bad shoeing, had caused the condition.

Dr. E. H. Bradford said that by means of the rubber bandage and felt pads he had relieved many cases. He had seen no case of true metatarsalgia in which the second metatarsal bone was depressed; they had all been in cases in which the trouble was in the fourth metatarsal bone.

Dr. J. E. Moore, of Minneapolis, said that he had met with this condition most commonly among nurses. His treatment had been successfully carried out along the lines recommended in the paper.

Dr. Kerr, of Washington, D. C., said he had also found metatarsalgia associated with depression of the fourth metatarsal bone, and had relieved the pain and disability by excision of the metatarsal joint, and sometimes also of the nerve.

The president called attention to the fact that a proper shoe should be made, so that the toes do not point upward, as they did in the ordinary shoe.

Dr. Goldthwait, in closing, said that undoubtedly the chief cause was bad shoeing. In some cases there had been pain at the head of the fourth metatarsal bone, and in others between the second and third metatarsals.

A Wry-Necked Family.—Dr. Hilton Thompson reports (*Lancet*) an interesting series of four cases of wry-neck in the same family, though there is nothing in the family history to suggest a cause for it (*Boston M. & S. J.*).

The first patient, now the most severely affected, had torticollis in childhood, but does not know the date of its commencement. When fourteen years of age she had chorea, but there is no history of rheumatism. After this date the torticollis became more marked. As regards her present condition there is well-marked torticollis. The right shoulder is pulled up. There are tonic contractions of all the muscles of the left side of the neck and frequent jerking contractions of the erector spinæ muscles. The muscles of the right side of the neck are hypertrophied and are much larger than those of the affected side. There are jerking choreiform movements of the muscles of the face and great difficulty in speaking and swallowing. The limbs are also markedly affected. When spoken to, all the contractions become exaggerated. Slight movements occur during sleep. Otherwise the patient is in good general health.

The brother, a strong man of thirty-six, was entirely well till four years ago, when he began to have twitching of the face and neck. Six months after this he noticed that his head was pulled to one side. The contractions were worse in damp weather; at times he had a difficulty in speaking. At the present time the left shoulder is markedly pulled up, and the head is pulled back-

wards and rotated to the right. There are no convulsive movements, but if the affected sterno-mastoid be taken between the finger and thumb slight tonic contractions can be felt. The sterno-mastoid and trapezius on the affected side are smaller than on the corresponding side. There is no paralysis or loss of sensation. His general condition is good.

A second brother's trouble is of only ten weeks' duration. His head is strongly pulled down towards his right shoulder, rotated to the left, and extended so that his face looks upwards and to the left. The right shoulder is slightly pulled up. The right sterno-mastoid, the upper border of the trapezius, and the levator anguli scapulæ are affected; these muscles are slightly hypertrophied.

The last case is a healthy, good-looking girl, eighteen years of age. She states that for a few months she has been troubled with involuntary movements of her head backwards and to the right. At first the movements were very slight and occurred at long intervals, but lately they had been stronger and more frequent, and now she notices that her head is slightly pulled to the left when she is thinking of something else, but she can always keep it straight by an effort of the will. The head is at present slightly rotated to the left and drawn down to the right shoulder.

RAILWAY SURGERY.

Traumatic Rupture of the Biceps Muscle of the Arm, with Open Fracture of the Internale Condyle of the Humerus.—Dr. T. B. Roberts (*Annals of Surgery*), at a recent meeting of the Philadelphia Academy of Surgery, presented a man, twenty-eight years of age, who was admitted to the Methodist Hospital on December 11, 1895, with a longitudinal wound six inches long in the middle line of the front of the left arm just above the bend of the elbow. The limb had been injured by being caught between the bumpers of two railroad cars. The ragged end of a torn muscle, evidently the biceps, was seen through the wound, and the bicipital fascia was laid bare. Careful examination showed that the internal condyle of the humerus had been split off by an oblique line of fracture running into the joint. It was evident that the injury had torn nearly the whole thickness of the biceps muscle, and that the muscular fibres so torn had retracted into the upper part of the arm. The

incision was extended upward for six inches to uncover the retracted fibers. The small portion of muscle untorn, which was about as thick as a little finger, was found to be the central portion of the biceps. The main mass of the muscle was drawn downward and sutured to its tendon with catgut. These sutures were applied very much as in the ordinary method of teno-suture. A counter opening was made on the back of the arm and a drainage-tube inserted because of the probable septic character of the wound, though sterilization was attempted. The wound was then sutured and the limb placed with the elbow flexed and the hand supinated so as to relax the biceps.

The next day it was necessary to remove some of the stitches because of the swelling due to sepsis. A plaster of Paris splint was applied to the back and internal surface of the arm in such a way as to keep the hand and arm in the position just described.

The patient has done well, the wound at the present time, January 17, being a superficial ulcer, and the patient having considerable action at the elbow-joint.

Fracture of the Ninth and Tenth Dorsal Vertebrae.—Dr. Hamell reports following case (*Railway Surgeon*): F. S., married, aged 26, coal heaver for the Missouri Pacific Railway, was injured at Sedalia by falling from a coal chute. He was admitted to the Kansas City Hospital July 24, 1896, with complete paralysis of sensation and motion from twelfth rib down. There was an absence of all reflexes except the cremasteric. An examination revealed fracture of the ninth and tenth dorsal vertebrae. In the absence of Dr. King, consulting surgeons Smiley, Fulton and Thompson were called in and confirmed the diagnosis. The patient was put under the influence of chloroform and an incision made over the spine, extending from the ninth to the twelfth dorsal vertebrae. The muscles were cut away. Further examination revealed comminuted fractures of the spine and laminae of the ninth and tenth dorsal vertebrae, with dislocation forward of the ninth vertebrae. The ninth and tenth ribs were fractured and the parietal pleura was ruptured. There was complete disorganization of the cord from pressure. On July 29 patient had a chill, followed by a temperature of 104° F. A physical examination disclosed pleurisy of the left side and pneumonia of right.

The patient died August 2. Post-mortem examination confirmed the condition described above, with the addition that the body of the ninth vertebra was fractured.

Concussion of Spine with Complications.—Dr. Hamell reports following case (*R. Surgeon*): H. O. B., aged 36, single, painter for the Missouri Pacific Railway, fell from a ladder, sustaining a Colles' fracture of the left radius and concussions of spinal cord, followed by paraplegia, and further complicated by multiple neuritis and cystitis from using the catheter. A vesical calculus formed. Perineal cystotomy was performed, and a calculus as large as a filbert removed. A doubt still remains whether this stone was previously formed in the bladder or whether it could have formed within a month. The patient recovered.

Osteomyelitis.—Dr. Hamill (*Railway Surgeon*) reports the following case: A. B. W., an agent for the Missouri Pacific Railway, aged twenty-four, and maimed, entered the hospital December 9, 1895, with osteomyelitis, which was the result of an injury received eleven years ago. The right tibia was very much enlarged anteriorly, and a sinus extended into the medullary canal to the depth of three inches. The anterior surface of the shaft of the tibia corresponded to the swollen portion some three inches in extent. The medullary canal was thoroughly curetted and all necrotic and inflammatory tissue removed. Good recovery.

GENITO-URINARY SURGERY.

The Radical Treatment of Prostatic Hypertrophy.—Bruns (*Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie*), from a careful study of available clinical records, draws the following conclusions on the present position of castration as a method of treating hypertrophy of the prostate:

The results of this operative treatment agree with those of experimental research in showing that there is a close physiological connection between the prostate and the testicles, and that the development and healthy condition of the former depend upon the integrity of the latter. In a large proportion—83 per cent. of 148 cases collected by the author—castration was followed by a decided wasting of the prostate.

This wasting usually begins very soon after the operation, and in the course of a few weeks the organ is reduced to almost its normal volume.

In the very soft forms of prostatic enlargement the prognosis of castration is much more favorable than in cases in which the prostate is tough and firm.

There can be no doubt that castration is not only followed by reduced vascularity, but also of shrinking and fibroid degeneration of the glandular tissue.

As the vascular supply of the prostate is independent of that of the testicles, this atrophic change can only be attributed to a nervous influence.

Although after castration the restoration of the functions of the bladder is less certain than atrophy of the prostate, the surgeon may fairly anticipate that the operation will result in a decided relief in a large proportion of cases, and in complete cure in many.

Bruns arranges the successful cases in three groups:

The first comprises the cases of dysuria without retention; the operation is usually followed by the cessation of the frequent and urgent desire to pass the urine.

Even after a long-continued dribbling the urine may be discharged in a full stream.

Prostatic subjects suffering from retention, who for some few weeks only before the operation have been compelled to use the catheter, are, as a rule, able to dispense with this instrument and to pass urine spontaneously.

Those who have suffered from chronic retention, which has necessitated for a long time the continued use of the catheter, may be relieved after castration from the necessity of thus emptying the bladder.

In most cases which have been treated by operation, there is, if not complete cessation, a considerable alleviation of the symptoms of vesical catarrh.

Double castration, although an easy operation, and in itself free from any immediate danger, is open to serious objections even in the patients advanced in years.

Cases have been recorded in which it has been followed by nervous depression and mental apathy.

For this reason the author is inclined to favor section and lig-

ature of the vas, as the results obtained by this latter operation are very encouraging.

At the present time the most certain method of treating prostatic hypertrophy, especially in the early stages of the disease, is double castration.

Primary Tuberculosis of the Kidney.—Hamill (*International Med. Mag.*) briefly relates the results obtained in seventeen cases upon which operations were performed. Nephrotomy was done four times, with two recoveries, one improvement, and one death. Nephrectomy was done nine times, with five recoveries, one improvement (died later from perforation of the duodenum), and three deaths from the effect of operation. Nephrotomy followed by nephrectomy was resorted to in four cases; two recovered, one died, and one improved.

All of these operative cases were very far advanced, and were therefore not good cases. Of the two nephrotomies that recovered, one had pyelitis and peri-nephritic abscess, and the other abscess of the kidney. Of the cases of nephrectomy which recovered, in one the kidney was a loculated sac containing foul-smelling pus, in two others the kidney was enlarged, peri-renal abscess existed in one, and in one the kidney was not described. In the case which died from perforation of the duodenum, a large peri-nephritic abscess was first opened, and later a cystic kidney removed. Marked improvement had occurred in this case.

Of the two cases of nephrotomy followed by nephrectomy which recovered, one had peri-renal abscess and abscess of the kidney. In the other case the lad's condition was miserable: a perineal section was first resorted to for the relief of a tuberculous cystitis; later nephrotomy was done to relieve a pyonephrosis. Marked improvement resulted, and finally the kidney was resected. The boy recovered, with the urine clear.

Resection of the Spermatic Cord for Hypertrophy of the Prostate.—Helferich (*Munch. med. Woch.*) has operated by this method in ten cases. In all the passing of urine has improved a number of times in a marked degree. In one case there was an improvement the day following the operation; in the majority of patients on the fifth or sixth day. The operation also showed a beneficial influence: diminution of rectal tenesmus, disappearance of melancholy mood, catheterism became easier.

Marked diminution of the prostate was noticed in but few cases. Unpleasant results were not observed.

Helferich operates without narcosis; fixation of vas deferens, 1.5 ctm. incision, isolation of the cord, resection of peripheral end. Patient can get up immediately after operation.

In order to explain the results Helferich distinguishes an early and late result. The early effect is to be explained by reflex contraction of the blood-vessels; the late result by atrophy of prostate.

The Blood in Nephritics. — V. Jakch (*Centbl. f. un. Med.*) was able to demonstrate uric acid in the blood of eight nephritics showing severe nephritic symptoms. In an earlier-reported series of experiments he found uric acid in the blood eight times in ten cases. Accordingly uric acid was detected in the blood in 88.88 per cent. of the nephritics. During the course of uremic attacks one patient had very large amounts of uric acid; at those periods when no uremia existed, however, no trace of this substance could be found. According to the author this positively indicates that uric acid is retained in the blood during the uremic attacks.

Some Points on the Treatment of Impermeable Stricture of the Urethra.—Dr. Wight, Jr., says (*Int. Jour. Surg.*): Some patients with stricture of the membranous urethra, fearing operation, neglect to seek the advice of the surgeon. When they are finally obliged to ask assistance, a careful examination shows the stricture to be impermeable. The following cases, operated on by Professor Wight at his clinic at the Long Island College Hospital during the session of 1895-96, will illustrate some points on the treatment of impermeable stricture:

CASE I.—John J., aged 42 years, was admitted to the hospital October 28th, 1895, suffering from retention of urine. At fourteen years of age he had gonorrhea. For the last ten years he had had trouble in urinating, and consulted no one till two days previous to admission to hospital, when his bladder had to be aspirated to give him relief. His physician sent him to the hospital. He was suffering exquisite pain in the hypogastrium, though his bladder was not much distended. No guide could be introduced, and aspiration failed to draw off urine. He was given hot baths, and later the urine dribbled away. He was

given a grain of opium the next morning, and another attempt made to enter the bladder, which failed. All subsequent attempts were equally unsuccessful. Perineal section was performed on November 6th, as follows: A lithotomy staff was passed to the stricture; an incision was made through the perineum to the beak of the staff; then a long, straight bistoury was used, cutting through the indurated tissue, along the line of the normal location of the urethra, till the point entered the neck of the bladder; a grooved director was passed through the incision into the bladder, and the retained urine ran out; the finger of the surgeon was passed along the groove of the director into the bladder, and the strictured portion dilated. Saline irrigation was then used, and a large catheter introduced into the bladder through the perineal wound and retained in position; dressings were applied, and the patient put to bed. Oozing was considerable till the next day, and the dressing had to be repeatedly changed. On the second day following the operation he was taken with severe chills and vomiting. The next day he had severe pain in right gluteal region, with swelling and slight, deep fluctuation. An aspirating needle drew off a small quantity of bloody serum, with escape of gas. That evening he was put under an anesthetic, and a free incision made through the right gluteal muscles. There was considerable inflammation of the surrounding tissues, with some fetid pus. The wound was washed out with a solution of bichloride of mercury, and dressings applied. The next morning he was jaundiced and in collapse. He died at 9 A.M. of acute pyemia. No autopsy was performed.

CASE II.—George C., aged 32 years, was admitted to the hospital November 8th, 1895, suffering with retention of urine. He had gonorrhea six years ago, followed by stricture. Sounds were passed for a time, and being relieved he neglected further treatment until four years ago, when he had retention, and then the stricture was dilated. Though he had some difficulty in passing water, he saw no physician till six weeks prior to admission to the hospital. A guide was with difficulty passed into the bladder. The stricture again closed down tightly and he came to the hospital with the urine dribbling away from overdistention. No guide could be introduced. He was given hot baths and put on a grain of opium a day. Three days later a small whalebone guide was passed through the stricture into the bladder. Two days later perineal section was performed, as in Case I.

The bladder was allowed to drain through a catheter in the wound, and the dressing changed daily for the first week. The catheter was then taken out, and straight Nos. 15 to 20 American sounds passed through the perineum into the bladder and also through the pendulous urethra. At the end of five days curved sounds were used. This was continued daily, patient passing less and less urine through the perineal opening till December 14th, when there was a small granulating surface left, and all the urine passed through the urethra. He left the hospital, and I saw him from time to time till the middle of March. I then passed a No. 19 American sound with ease. The wound was entirely healed and urination was painless and free.

G. J. L.

DISEASES OF THE NOSE, THROAT AND EARS.

The Influence of Diseases of the Nose and Accessory Cavities on the General Health.—Dr. E. J. Moure (*New Orleans Med. and Surg. Journal*) states that there are two conditions which may have a considerable effect on the general health of the affected subject; these are hypertrophic rhinitis and fetid atrophic coryza. When the hypertrophy is sufficiently well marked, so as to render nasal respiration difficult or perhaps impossible, the patient finds himself exposed to all kinds of bronchial and pulmonary complications.

In regard to fetid atrophic coryza, all practitioners are familiar with the poor and depressed appearance of ozenic patients, which may be explained either by the vitiated air which these patients breathe, or by the fact that they frequently swallow the septic products. There is another complication, however, which is not so well recognized, but which Dr. Moure has frequently met with in this category of diseases. It is the facility with which these patients may become tuberculosis. In his opinion, the enlargement of the nasal cavities, and especially the cutanization of the mucous membrane, renders the penetration of the tubercle bacillus more easy into the respiratory passages; especially since, in most cases of ozena, the larynx and trachea are also affected with the morbid process. There seems to be a connection of cause and effect between these two affections, to which it would be well to call the attention of observers.

In diseases of the accessory sinuses we may frequently have gastric and gastro-intestinal disturbances, which may be ex-

plained by the constant falling of pus into the throat, whence it is swallowed unconsciously, and this incessant absorption of pus by the digestive passages is not long in creating morbid conditions.

Sinusitis, with abundant and fetid suppuration, constitutes a latent morbid condition, which may take on a dangerous development with the least instigation, and under an influence very trivial in appearance. In these cases there is a centre of microbian culture, which may at any time inoculate itself at some special point, and afterwards develop with great rapidity; especially as the soil is usually well prepared for this culture on account of the former absorption of toxic products, which the system does not always completely eliminate. The suppuration of the maxillary sinus, on account of its abundant and often fetid secretion, appears to affect the general condition most often and easily.

Rheumatic Complications of the Nose, Throat, Ear and Eye.—Though the special organs may become the seat of the disease, general rheumatic symptoms may often be entirely absent (Dr. Wm. Cheatham, *Denver Medical Times*, July, 1896). Tonsillitis is nearly always of a rheumatic origin. The larynx may also become involved in the process. Extension from the pharyngeal tissues may reach the ear. Any part of this organ may be attacked. A distinctive feature in diagnosis is the great difference between the slight objective symptoms and the marked subjective signs. Anti-rheumatic medication, with exclusion of other inflammatory affections, readily establishes the diagnosis.

Tonsillitis as a Factor in Rheumatic Fever.—Sir Willoughby Wade (*Gaillard's Med. Jour.*, Aug., 1896) presents the details of the recently advanced theory that rheumatic fever is primarily due to tonsillitis. Clinical observers have for some time noticed that rheumatic fever is often preceded by tonsillitis. It was suggested that the poison of rheumatic fever might be fabricated in the mouth and throat, and gaining entrance into the tonsils and into the system, produced first the tonsillitis and then the rheumatic fever. It was observed that the micro-organisms primarily multiply in the lacunæ of the tonsil, and that they or their toxins enter the system through the abundant lymphatics in the neighborhood of the lacunæ. To present the theory concisely, tonsillitis is a primary infective disease of the

lacunæ; rheumatic fever, a secondary disease, arising from the absorption of micro-organisms or their products into the system.

That the theory of microbic origin of rheumatic fever is making headway may be seen by reference to Dr. T. J. MacLagan's article on "Rheumatism" in the *Twentieth Century Practice of Medicine*, and to the reported discussion on "Rheumatic Fever" at the last annual meeting of the British Medical Association.

In considering the nature of tonsillitis, the Laryngological Section of the British Medical Association summarized as follows:

1. The clinical phenomena correspond in every particular with those of an infective disease.
2. Cases have been noted in which the disease had undoubtedly been transmitted from one person to another.
3. Various species of coccus and bacillus are to be found within the lacunæ, within the closed follicles—are even within the epithelial cells of tonsils removed during the acute stage. Leucocytes in large numbers are found associated with the micro-organisms.

From a throat point of view the natural history of tonsillitis shows that it is divisible into the following classes:

1. Tonsillitis with or without abscess, which is neither preceded, attended nor followed by rheumatism.
2. Cases of repeated tonsillitis without rheumatism, then an attack remotely followed by rheumatism.
3. Cases of first attack immediately followed by rheumatism.
4. Cases of first attack remotely followed by rheumatism.

To all of these subdivisions sufficient clinical data are presented. These clinical facts strengthen the suspicion that there is a special micro-organism capable of affecting the system, first, by the vehement local symptoms characteristic of acute tonsillitis; secondarily, by the promotion of some body-toxine influencing the blood, lymph, or nervous system, and known to medical lore as the "rheumatic diathesis."

It is suggested to bacteriologists that the separate cultivation under varied conditions of the micro-organisms usually found in acute lacunar tonsillitis, and the physiological testing of their products, be made; a microscopical examination of the blood

should be undertaken to determine the presence of any morbid elements which might be associated with the rheumatic diathesis.

Acute Otitis Media.—Dr. Bulson (*Ft. Wayne Med. Magazine*) says:

“1. Consider ‘ear ache’ as a warning note of danger to the patient, both as respects function of hearing and life, and carefully inspect the visible parts implicated in the inflammation.

“2. Avoid opiates, which often times but mask the symptoms, and if within the first few hours no relief from pain results from hot applications and local depletion, perform paracentesis whether bulging of the membrane is present or not.

“3. Incise the drum membrane at once if bulging is detected indicating early perforation, as it is important to if possible control the character, extent and location of the opening in the drum membrane in order to limit destructive changes.

“4. With the appearance of discharge, begin the process of cleansing, adopting nothing more than warm detergent and non-irritating antiseptic solutions, and using them sufficiently often to keep the parts free from collections of mucous or pus.

“5. Keep the naso-pharynx free of discharge by detergent sprays, and cautiously use Politzer inflation to assist in removing discharges from the middle ear, as well as to aid in preventing depression of the healing drum membrane and possible adhesion.

“6. To secure the best possible results, which are always desirable, and due both patient and physician, persistently follow treatment until all discharges have ceased and the perforation thoroughly closed.”

[After thoroughly cleaning the ear use the dry treatment.—Ed.]

F. M. R.

OPHTHALMOLOGY.

Granular Conjunctivitis.—The following formula appears in the *North American Practitioner* of recent date:

Rx.	Mercuric oxide.....	gr. iij.
	Zinci oxidi,	
	Thymol,	
	Muriate of cocaine.....	āā gr. ss.
	Camphor.....	gr. ss.
	Vaseline.....	3ij.
M.	ft. ung.	

Malignant Orbital Tumors.—Dr. C. S. Bull's conclusions in regard to their course and prognosis, as influenced by surgical operations for removal, are as follows (*Jour. Am. Med. Ass.*):

1. The prognosis of all forms of malignant orbital tumors, whether primary or secondary, is unfavorable; and if the tumor be primarily in one or more of the deep facial bones or their sinuses, the prognosis is positively serious.
2. Except in the case of encapsulated tumors of the orbit, surgical interference is almost invariably followed by a return of the tumor, and the growth of the secondary tumor is more rapid than that of the primary lesion. With each succeeding operation the period of quiescence in the return of the tumor grows shorter, and the rapidity of the growth increases.
3. The patient's family, and in certain cases the patient himself, should be told of the serious nature of the trouble and be warned that complete removal of all the disease germs is an almost hopeless task. The burden of the decision as to surgical interference must rest upon the shoulders of the patient.
4. Repeated operations in these cases undoubtedly shorten the life of the patient. While it is our duty to operate in order to relieve severe or unbearable pain, we should be slow to operate merely for the sake of relieving temporarily physical deformity, especially if we are convinced that by so doing we shorten the life of the patient, even if that shortened life is rendered more bearable.

Foreign Bodies in the Vitreous.—Rohmer (*Annales d'Oculistique*) touches on some of the points connected with the diagnosis and extraction of metallic foreign bodies from the posterior segment of the eye. Among the signs which help to determine that a foreign body is actually present, especially when the lens has been injured, is a retraction in the upper part of the field of vision. If the foreign body is visible with the ophthalmoscope it can be localized for the purposes of extraction by thrusting in a fine needle as near as possible to it, the point being watched with the ophthalmoscope; a second and a third, if necessary, are introduced. (A better method is to mark out on a perimetric chart the scotoma which the foreign body occasions, and from thence deduce its position in the eye.) By means of Gerard's magnetometer one can get an idea of both the size and position of the chip, if steel or iron, but from its delicacy many precautions have to be observed in using it. For

the removal of the foreign body Hirschberg uses a weak electro-magnet, the terminal of which is introduced into the eye ; while Haab, Schloesser, and others employ a strong electro-magnet, the terminal of which is merely applied to the eye. The former is to be preferred. The current may be continuous or interrupted. According to Sulzer the best form for the magnet is a horseshoe. Out of 248 cases collected by Hildebrand in which the electro-magnet was introduced into the vitreous, as directed by Hirschberg, nothing was found in 74 of the cases ; in 174 the foreign body was extracted, with favorable results in 91 cases, good vision being obtained in 62, and in the other 29 the shape of the eye was preserved ; phthisis of the globe occurred in 23 ; in the remaining 34 cases the result was not known. An essential condition of success is to operate as soon as possible after the injury.

MEDICO-LEGAL.

Must Give Notice of Trial for Insanity.—An inquiry and trial in the probate court in Kansas, had upon an information charging one with being a person of unsound mind and incapable of managing his own affairs, the court of appeals of that State holds, *In re Wellman*, decided June 12, 1896, should only be had after notice to the person alleged to be insane, and after opportunity has been given such person to be present at the trial, in person or by counsel (*Jour. Am. Med. Ass.*). An adjudication of insanity that is made without such notice and opportunity to be heard, it holds is a nullity, and void, and a commitment thereunder to the insane asylum is illegal.

Physicians can Testify as to Stains.—After both an examination thereof, under a microscope and a chemical analysis, the supreme court of South Carolina holds, in the homicide case of *State v. Martin*, decided July 11, 1896, that physicians are clearly entitled as experts to give their opinion as to the character of stains found on a piece of floor (*Jour. A. M. A.*). That the latter was not taken from the house in which the defendant lived at the time of the alleged homicide until a few days before the trial, after the defendant had moved from it, and while it was occupied by another person, it is further held did not render it inadmissible in evidence, though the force of the evidence was perhaps weakened by these circumstances.

Can Answer Hypothetic Questions.—If a physician, who has professionally attended upon and prescribed for a person, and has also observed such patient while not thus in attendance, can give an opinion as to his condition based upon facts he observed while not acting professionally, and excluding from his mind what he observed while in attendance, the appellate division of the supreme court of New York says (*Jour. Am. Med. Ass.*) that it can see no reason to doubt that he may also give an opinion upon a hypothetic state of facts stated in a question which excludes all knowledge of the condition of the patient which he derived while in professional attendance. The only objection, it further states, in the case of *Meyer v. Standard Life & Accident Insurance Co.*, decided July 7, 1896, that can be urged to a doctor who has been in medical attendance upon a person giving an opinion in answer to a hypothetic question as to the condition of his patient, is that the knowledge he derived while in attendance might affect his answer. But the same objection exists to the physician's giving an opinion founded upon observation of his patient while not in actual professional attendance. Mr. Justice Landon, in a concurring opinion, says that the trial judge in the court below decided, in effect, that the attending physician could not answer the hypothetic question solely upon its hypothetic basis, but would to some extent base his answer upon his professionally acquired knowledge of the patient's actual condition. His reviewer, on the other hand, thinks that, as this is a question of fact, it should be decided upon evidence. It can not be assumed, as a matter of law, that the physician could not answer the question as a hypothetic one, wholly uninfluenced by his personal knowledge of the patient's condition. He therefore suggests that the proper practice would be to examine the attending physician preliminary as to his ability in this respect.

NEUROLOGY.

Tumor of the Cerebellum.—Dr. Frederick Peterson presented to the New York Pathological Society (*Med. Rec.*) a tumor of the middle lobe of the cerebellum, removed from a boy twelve years, who had been sent to him for examination in July, 1895. About Christmas of 1894, up to which time

the patient had been perfectly well, he had an attack of grippe with meningeal symptoms. After recovery from this he suffered from periodical headaches, which grew worse. These headaches were frontal, occurred once a week, and lasted a few hours. Sometimes he was delirious during these attacks. Six months previous to coming under the observation of Dr. Peterson, he was said to have had optic neuritis. The examination revealed the following: Optic atrophy with feeble perception of light, knee-jerks absent, no nystagmus, no ocular palsies, no paralysis nor alteration of sensibility; pulse and respiration normal. He had attacks of headache with vomiting weekly. A very peculiar symptom was constant choreiform movements of the head, mouth and face muscles and all four extremities, precisely like an ordinary chorea. There was a staggering gait. The diagnosis of a glioma or glio-sarcoma of the middle lobe of the cerebellum was made, the symptoms being typical. The boy, while on a visit at Syracuse some time ago fell down stairs, fractured his skull and died. Dr. Van Duyn, who made the autopsy, had kindly sent him the brain. On microscopic examination by Dr. Bailey the tumor proved to be a glioma, and its situation in the vermis was verified. The tumor was encapsulated, was five centimetres broad and 2.5 centimetres deep, and lay directly in the vermis, encroaching equally on each side into the lateral lobe of the cerebellum. The fourth ventricle was widely dilated, and the whole bulk of the pons seemed to have been subjected to considerable compression. Dr. Peterson said he had seen many cases of tumor of the cerebellum, but never before one with the choreiform movements which distinguished this case.

Tetanus.—Dr. E. F. Trevelyan reports a single case of cephalic tetanus treated by injections of antitoxic (antitetanic, Roux) serum (*Record*). This was without result, although two successful cases have been reported by Caretti and by Einstein and Buonati. This disease is also known as tetanus hydrophobicus, owing to the pharyngeal spasm induced by attempts at swallowing; tetanus paralyticus, as proposed by Klemm, to emphasize the importance of the facial paralysis; and bulbar tetanus, to accentuate the fact that bulbar symptoms are so frequently present. There is, however, no real difference between cephalic and ordinary tetanus, as is shown by the fact that the muscular spasm tends to

become general in both; in fact, it is only a difference of mode of ingesta, the former resembling more closely experimental tetanus. Failure in this case may have been due to an insufficient quantity used or to the use of the warm water in dissolving the desiccated serum. This is the third instance in which the author has observed the use of the remedy—in one the Tizzoni-Cattani serum was employed, and in all it did not appear to have the slightest effect upon the disease.

Acute Ascending Landry's Paralysis.—From the pathological examination of the nervous system of a patient who died of this disease, and from an exhaustive review of the literature of Landry's paralysis, Drs. P. Bailey and J. Ewing conclude that acute ascending paralysis is an acute toxemia in which the poisonous agent affects principally the nervous system (*Am. M.-S. Bull.*)

The commonest seat of the lesion is in the spinal cord and in the medulla, and it may be present in the cortex and in the nerve-roots (*N. Y. Med. Jour.*). When in the spinal cord the lesion is that of an acute anterior poliomyelitis—namely, an acute exudative inflammation, following the distribution of the central branch of the anterior spinal artery, with cellular infiltration of the circumvascular sheaths, degeneration of ganglion cells, loss of structural elements, and with or without degeneration of the anterior roots. The lesions in other parts of the cerebro-spinal axis are of a similar nature.

The evidence that the lesion of typical Landry's paralysis may exist in the peripheral nerves alone is based upon a single case reported twenty years ago by Dejerine. When the lesion affects the peripheral nerves there are increase of neuroglia cells and degeneration of nerve fibers.

It is at present impossible to deny that acute ascending paralysis may run a fatal course without leaving demonstrable histological changes in the nervous system. It is certain that the cases with negative pathological report did not present the marked vascular lesions of acute anterior poliomyelitis, but it seems probable that in these cases there were changes in the ganglion cells demonstrable by delicate methods. From the present data it seems impossible to distinguish by the clinical symptoms the different types of lesions.

Book Reviews.

Practical Diagnosis. The use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M.D. 8vo.; pp. 566. Illustrated with 191 Engravings and 13 Colored Plates. [Philadelphia and New York: Lea Brothers & Co. 1896. Price, \$4.75.

There can be no manner of doubt that the entire success of medical treatment depends in great part upon a correct diagnosis. Of course, a proper application of therapeutic measures is also an absolute necessity for the attainment of such an end; but the correct appreciation and recognition of the malady is the most important. In reading descriptions of diseases students and practitioners are very much left to themselves to select those signs and symptoms which they deem most important, and frequently erroneously. Under these circumstances, it will be readily seen that a guide which deals with symptoms as such, in an analytic manner, cannot fail of being of the highest utility as a clinical guide and instructor.

This is just what we are offered in the volume before us. The author has fully recognized the needs of the student of diseases and diseased conditions. To accomplish his task properly he has chosen the method of first discussing the symptoms used in diagnosis, and their practical application to determine the disease follows. In this manner an analytic method is acquired by means of which much time, labor, and vexation are spared. The prominent symptoms are first noted and the diagnosis is made to fit them, instead of first making a diagnosis and trying to find symptoms to fit it. In fact it is a method of clinical reasoning which differentiates rapidly and accurately and can lead to none but exact and satisfactory results, thus paving the way to more thorough methods of examination and more rational therapeutic applications, and consequently a better appreciation of varying factors entering into diseased processes proper medication.

After the introduction, which deals with general diagnostic considerations, Part I. is introduced. In this the manifestation of disease in organs is taken up. This part consists of thirteen chapters devoted to the face and head, the hand and arm, the feet and legs, hemiplegia, the tongue, mouth and pharynx, the eye, the skin, the thorax and its viscera, the abdomen and the abdominal viscera, the bloodvessels and pulse, the blood, the urinary bladder and the urine, the bowels and feces. Part II. is devoted to the manifestation of disease by symptoms. It is divided into nine chapters whose subjects are as follows: fever and abnormal temperatures, headache and vertigo, coma or unconsciousness, convulsions or general spasms, vomiting, regurgitation and the character of the vomit, cough and expectoration,

pain, tendon-reflexes and muscle-tone, and speech. As will be seen, the author has covered an immense field, and his experience in both didactic and clinical teaching has enabled him to perform his task in a singularly successful manner. The true value and worth of the book becomes most apparent when it is read in connection with a good one on the practice of medicine. It is then that its full value becomes pre-eminent and its usefulness develops itself most fully.

But it is not only the text that is possessed of such high qualities; the illustrations and plates, which are numerous, add not a little in the way of a clear elucidation of the subjects dealt with, and afford a much clearer insight into the various processes of a morbid nature, more especially those connected with the brain and cord. The author has most judiciously devoted a considerable amount of attention to the symptoms of nervous diseases, which seem to have been always a sort of *bête noir* to the general practitioner.

The book is one which, on the whole, we can heartily recommend to the careful perusal and study of everyone engaged in the study or practice of medicine. Taken in connection with the same author's *Practical Therapeutics*, it will be found of the utmost value. A valuable portion of the book before us is the double indexing. There is an Index of Diseases and an Index of Symptoms, Organs and Terms.

The mechanical execution of the book is most excellent, the paper of superior quality, and the binding both elegant and durable.

A Manual of Pharmacology and Therapeutics. By WILLIAM MURRELL, M.D., F.R.C.P. Revised by FREDERICK A. CASTLE, M.D. 8vo.; pp. 516. [New York: William Wood & Co. 1896.

This is a work which differs from the majority of those devoted to the same subject in the fact that it is written in a pleasing and entertaining style. Whilst originally written for Englishmen, it has been revised and adapted to American practice and standards, in a very competent manner, by Dr. Frederick A. Castle, the well-known teacher of materia medica of Bellevue. Whilst some might be inclined to find fault with the book on account of the number of drugs which are not mentioned, those which are given are handled in such a thorough and adequate manner that it makes a most satisfactory whole, and is enriched by a large number of notes and additions contributed by the revisor.

The style of the author is alluring, although he is sometimes inclined to be a little malicious, and justly so we think. For instance, we cull the following gem from his chapter on Various Cures (page 56): "Faith-Cure—The system or practice of attempting or pretending to cure diseases by religious faith and

prayer alone. It is said to differ from 'mind-cure' in that the faith-curers have no mind, whilst the mind-curers have no faith."

The book is constructed on what we would term a chemical basis. After the introduction, which speaks of ancient remedies, therapeutic methods, accessory treatment, principles of dosage, and of prescribing, and cognate subjects, the author enters into the consideration of drugs. He speaks of the pharmacology of inorganic substances, of synthetic compounds, of drugs of vegetable origin, and of drugs of animal origin. The apparent incongruity of this method is made up for by the addition of a chapter on pharmacological groups. A large number of formulas is given, many of which are of doubtful value, but which may still find a place in the note-books of students and serve some purpose.

What we desire to particularly commend in Murrell's book is the care and attention he has given to the subject of the therapeutic action of each drug he discusses. In too many of our works on materia medica the action of drugs is handled perfunctorily and dismissed in a manner which is anything but satisfactory to the reader or student. Not so with this author: he considers his subject from the standpoint of a clinician as well as from that of a pharmacologist. This fact alone should recommend the manual to all in need of a reliable and good work on the subject.

The large index is one constructed on a new plan, which will commend itself to all those who desire information rapidly. It serves a double purpose, by giving the maximum single dose of each drug on the same line as the page reference. The mechanical work, paper, etc., are of the best and the work makes a handsome volume.

A Treatise on Appendicitis. By JOHN B. DEEVER, M.D. 8vo.; pp. 168. Containing 32 Full-Page Plates, and Other Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1896.

Appendicitis has through the study given to it arrived to the point where it can lay claim to being an important surgical affection, which gives the best results when properly treated and the opposite when in the hands of the inexperienced and foolhardy. It is a deplorable fact that every one who practices medicine looks upon himself as competent, not only to make a diagnosis, but to operate in cases as well. And yet a little thought and study will convince any one that the trouble is far from a simple one at best, and very often a most complicated affair, requiring the highest talent to enable the surgeon to successfully cope with it.

It is for these and many other reasons that we welcome Dr. Deever's monograph on the subject. In the recent works and text-books on surgery which have recently appeared, appendicitis has been rather summarily disposed of, and many who

had had no opportunity of examining cases under trained eyes, or of seeing the trouble operated upon, were literally "at sea" on the subject. The book before us is one written in so clear a manner and illustrated so fully and artistically that any one perusing its pages will be surprised to find the whole matter simplified in so intelligent a manner.

The plates constitute one of the chief and most valuable features of the book. The anatomical relations of the vermiform appendix and its anomalous positions and forms are most graphically pictured. A number of colored plates illustrate different and varied forms of appendicitis, the history of the case whence the specimens was derived being always added. The colored plates illustrating the manner of operating speak for themselves. Every step is graphically delineated, and the demonstration is so clear that any one looking at it would feel himself competent to attempt the performance of the operation.

The author shows in this monograph that he has had a large experience in the treatment of appendicitis, and inspires confidence in his reader. Not the least important part of the book is the last chapter, which deals with the complications and sequelæ of appendicitis.

The publishers are to be complimented upon the handsome volume they have produced. The binding is rich and artistic, the print large and clear, the paper most excellent, and the plates are above all criticism and of superior merit. No surgeon or, for the matter of that, physician should be without this excellent work.

A Manual of Venereal Diseases. By JAMES R. HAYDEN, M.D. 12mo.; pp 263. With 47 Illustrations. [Philadelphia and New York: Lea Brothers & Co. 1896. Price, \$1.50.

This is quite a clear and concise manual, which students will find of great use to them. Practitioners as well can gain a clear conception of the three principal venereal diseases which are treated of in the book. It is a little work in which the author has very judiciously insisted upon thoroughness of diagnosis as well as upon the most approved method of treatment.

If we were inclined to find fault with this excellent epitome, it would be that sufficient space has not been devoted to the subject of syphilis. Yet the lines are laid down in a broad, terse and clear manner, such as to prove of the greatest help when supplemented by more discursive lectures and clinical examples. As a syllabus to lectures it is unequaled in the branches of which it treats, and it is, no doubt, for this reason that the former work, similar in character and scope, by Culver and Hayden, attained such popularity. The present, which is the work of Hayden alone, has been improved in many respects, and will no doubt enjoy the popularity which it deserves. O-D.

Literary Notes.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

The Medical and Surgical Uses of Electricity. By A. D. Rockwell, A.M., M.D. Royal 8vo.; pp. 612. Illustrated with 200 Engravings. New Edition. [New York: William Wood & Co. 1896. Price, \$4.50.]

Transactions of the Medical Society of the State of California, Session of 1896. 8vo.; pp. 359.

A Vest-Pocket Medical Dictionary. By Albert H. Buck, M.D. 24mo.; pp. 527. [New York: William Wood & Co. 1896.]

A Manual of Venereal Diseases. By James R. Hayden, M.D. 12mo.; pp. 263. With 47 Illustrations. [New York and Philadelphia: Lea Brothers & Co. 1896. Price, \$1.50.]

A Treatise on Appendicitis. By John B. Deaver, M.D. Containing 32 full-page Plates and other Illustrations. 8vo.; pp. 168. [Philadelphia: P. Blakiston, Son & Co. 1896.]

Practical Diagnosis: The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M.D., B.Sc. 8vo., pp. 566. Illustrated with 191 Engravings and 13 Colored Plates. [Philadelphia and New York: Lea Brothers & Co. 1896. Price, \$4.75.]

A Manual of Pharmacology and Therapeutics. By William Murrell, M.D., F.R.C.P. Revised by Frederick A. Castle, M.D. 8vo.; pp. 516. [New York: William Wood & Co. 1896.]

A Vest-Pocket Medical Dictionary is always a welcome friend to a medical student. It should be up-to-date and not be so bulky as to be cumbersome. Such an one has just been issued by Messrs. William Wood & Co., of New York. It is the work of Dr. Albert H. Buck, and will commend itself at sight. It measures $2\frac{1}{2} \times 3\frac{1}{2}$ inches outside the covers, which are of flexible red morocco, and contains 529 pages of definitions. The great point in this dictionary is that it contains a large number of the new words introduced into medical terminology during the past few years, and is thus of more use in reading than some of the older and bulkier lexicons.

Announcement.—Messrs. Lea Brothers & Co., of Philadelphia, have announced the only appearance of Davis' Treatise on Obstetrics, in one handsome octavo volume of about 700 pages, with about 200 engravings. Dr. Davis is the well-known clinical professor of obstetrics in Jefferson Medical College, and his work will afford students and practitioners a concise yet comprehensive guide to the whole art of obstetrics in its most modern development. A marked and attractive feature will be found in the

exceptionally rich series of engravings, among them being a large number of photographic reproductions of obstetrical scenes carefully selected in view of the amount, vividness and permanence of the knowledge which can be as well conveyed in no other way.

Melange.

The Doctors in France number nearly 17,500. Four hundred and fifty die each year, and 650 new ones are turned out by the universities.

Cod Liver Oil in Phthisis. — Dr. S. C. Martin, Jr., says: Under the influence of modern teachings many of the remedies which proved so beneficial in the hands of our ancestors have been retired to the catacombs. Fortunately, however, for both physician and patient, their resurrection has served to place them in a position which is practically unassailable. Witness in proof of this fact the use of saline or calomel purgatives in the infectious febrile diseases, and blood-letting in indicated cases.

The same situation confronts us in the use of cod-liver oil. The time has been when this therapeutic agent was considered only as an article of food, with exceptional influence as a medicine owing to the presence of iodine or phosphorus. In harmony with this view, physicians sought more available and palatable articles of food, and administered iodine and phosphorus in a more active manner.

Since the chemical investigations of Gautier, however, we have learned that cod-liver oil possesses more active and potent ingredients than those named, and which are specially of advantage in tuberculous or allied states. Owing, however, to gustatory objections, the American pharmacists have come to the rescue. The elimination of the greatest objection has served to increase its consumption, and thereby made available a most important agent.

I have recently met with two cases in which the superior advantage of cod-liver oil was manifest. Looking around amongst the many excellent preparations in the market, I determined to select Hagee's Cordial of Cod-Liver Oil. The following two cases will better interpret the indications and the result:

L. F., aged 16, an emaciated girl, a worker in a tobacco factory, and of dissipated habits, suffered from frequent pulmonary hemorrhages. The tubercular habitus was prominent. After relief of active symptoms, she was given a tablespoonful of Hagee's Cordial of Cod-Liver Oil every three hours, with excellent results.

N. J., a saloon-keeper of dissipated habits, was confined to his bed for a long period of time. The tubercular character of his condition necessitated active medication. Hagee's Cordial of Cod-Liver Oil, as in the foregoing case; and after a lengthy administration a favorable result was achieved.

Miscellaneous Notes.

Aletris Cordial in Miscarriage.—E. N. Campbell, M.D., Good Hope, Ill., says: I have used Aletris Cordial in threatened miscarriage and find it one of the finest and most efficient preparations that it has been my privilege to prescribe. Aletris Cordial should be used more than it is, although it is largely prescribed, yet like its twin sister Celerina, it is not prescribed often enough, to prove its efficiency. Most all cases that these preparations are used in, are of a chronic type, and those that require patience to relieve; hence, if these two remedies are taken regularly and persistently, according to the case, they will satisfy all concerned.

Atonic Dyspepsia.—In the treatment of this disease, as in that of other stomach disorders, regulation of the diet is the first step to be considered. Next is the selection of food which consists of nutritious and easily digested articles.

When the powers of digestion are weakened, special aids to this function are plainly indicated, and for this, Maltopepsine, (Tilden's) in combination with strychnia and the bitters, is the most potent of remedial agents.

The Purity of Cocaine.—To every physician, surgeon and specialist who employs Cocaine hydrochlorate, the absolute purity of the product used is a matter of paramount importance.

To make Cocaine absolutely pure, it is necessary to eliminate allied alkaloids and all inorganic substances, and this requires the most perfect technical methods and scrupulous care in the manufacture.

Boehringer & Soehne, as leading makers of Cocaine and the first to improve the process and furnish a chemically pure product, offer the assurance that all Cocaine supplied in original vials with the "B. & S." label is absolutely pure, of uniform highest standard of quality, and reliable.

B. & S. Cocaine hydrochlorate is supplied in chemically pure anhydrous, well-defined, perfectly white crystals; it meets the requirements of the United States Pharmacopœia, as well as all other standard tests.

For ready determination of presence or absence of dangerous allied alkaloids or impurities in Cocaine, we quote these official tests.

Test I.—Dissolve 0.1 gramme cocaine hydrochlorate in 5 ccm. water (making a 2 per cent. solution) in a clean, glass-stoppered vial, adding 3 drops diluted sulphuric acid; then add 1 drop of a 1 per cent. solution potassium permanganate, which produces a pink or violet tint. This tint will not visibly decrease within half an hour if the cocaine is free from cinnamyl-cocaine and other dangerous impurities.

Contamination with isatropyl-cocaine (a violent cardiac poison, which is stable towards the permanganate test) and other basic impurities may be detected by MacLagan's ammonia test, viz:

Test II.—Dissolve 0.1 gramme cocaine hydrochlorate in 87 ccm. water, and then add 3 drops of ammonia; for a few moments the solution will remain clear, but rapid stirring with a glass rod will cause a prompt crystalline precipitation of free cocaine. If isatropyl-cocaine is present a milky turbidity will immediately ensue on addition of the ammonia; if other impurities are present they will prevent the crystallization of the Cocaine.

B. & S. Cocaine will stand both tests—as well as other official tests—perfectly; it is a chemically pure Cocaine.

Palpebrine in Eye Affections.—We refer our readers to the advertisement of Palpebrine, which appears for the first time in this number. This product will be found useful in the following forms of external eye diseases:

Simple, acute, catarrhal, venereal, strumous and chronic conjunctivitis, acute and chronic blenorrea of the conjunctiva, inflammation of the lachrymal sac, blepharitis, etc.

Palpebrine is indicated in all cases where an accurate antiseptic solution of known quality and quantities are required.

Palpebrine is superior in its action to the remedies now in use. It contains all the constituents of Aqua Conradi as recommended by the renowned professors of the Vienna University, Ferdinand von Arlt, (see Clinical studies on Diseases of the Eye, by F. Ritter von Arlt, translated by L. Ware, page 23).

But to these are added a number of other agents which will prove Palpebrine to be of much greater value and give it a broader field for action.

Prevalent Malarial Conditions.—When two such well-known drugs as antikamnia and quinine are offered to the profession it hardly seems necessary to indicate the especial class of affections which call for their use. Antikamnia may now unquestionably be called a perfect substitute for morphine, for internal administration. It has complete control over pain, while it is free from the undesirable after-effects of the alkaloid of opium. But antikamnia not only possesses the good qualities of morphine without the bad, but it also has the properties peculiar to the coal-tar series. In cases of malarial fever the combination of antikamnia and quinine should be given as a prophylactic and cure. For all malarial conditions quinine is the best remedy we have. But associated with this condition there is always more or less pain, which often renders the life of the individual uncomfortable, if not positively miserable. Antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. There are a number of ailments, not closely defined, which are due to the presence of malarial poison. All such conditions are greatly benefited by the use of this combination. "Antikamnia and Quinine Tablets," each containing $2\frac{1}{2}$ gr. antikamnia, $2\frac{1}{2}$ gr. sulph. quinine, meet the indications most frequently.

Reliable and Unsurpassed Preparations.—There is no opiate that serves the purpose that does Papine. Bromidia speaks for itself. Iodia is an alterative, unsurpassed in its merits. I prescribe these remedies, and specify Battle & Co. because they are so well prepared that I think no drug store or prescriptionist capable of combining their ingredients so nicely, so accurately, and all considered so reliably as they are coming from their laboratory.

West Nashville, Tenn., Dec. 23, 1895.

J. H. GILES, M. D.

Keep the Bowels Open.—We are indebted to the bacteriologists for many things, but they have taught us nothing of more practical value than the lesson that a large number of our minor complaints and a thousand-and-one of our aches and pains, which make life miserable, come from auto-intoxication. The ever-present germs in the alimentary tract manufacture their toxins, and these are absorbed much to the distress, if not to the actual danger, of the individual. The good old-fashioned theory that you must "keep the bowels open" if you wish to enjoy perfect health, thus finds a scientific explanation in these latter days. It is now simply a question of common sense: keep the alimentary canal free from the poisons of germ life. You cannot do this better than by using California Fig Syrup. It is pleasant to the palate, and prompt to give relief.

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 671.

VOLUME LXXI.—NOVEMBER, 1896.—No. 5.

Original Communications.

DR. P. G. UNNA'S DERMATOLOGICAL LABORATORY, HAMBURG.

ON THE MORBID ANATOMY OF LEPROSY OF THE NERVE TRUNKS.

By JAMES C. KELLOGG, M.D., New Orleans, U. S. A., Volunteer Assistant in the Dermatological Laboratory and Clinic of Dr. P. G. Unna. (With plate.)

Having recently had an opportunity of examining a leprosy nervous medianus preserved in alcohol in the dermatological laboratory of Dr. Unna, it occurred to me that it would be interesting to form my own opinion in the hitherto undecided controversy regarding the position of the bacilli in the nerve trunks.

Herman Kühne, it will be remembered, propounded in the year 1887* a similar theory concerning the relations between the bacilli of leprosy and the nerve trunks, as Unna previously enunciated, with respect to the connection between these micro-organisms and the cutaneous tissues. Both authors arrived at the conclusion that the vacuolar formations described as "leprosy cells" by Virchow in his treatise on tumors long before the dis-

*Herman Kühne, f. Zur Pathologischen Anatomie der Lepre.—*Dermatolog. Stud.* Heft. vi., 1887.

covery of the bacilli, and acknowledged by Neisser as containing micro-organisms, by no means merit the designation of "leprosy cells," although it is even now often applied to them; for they are, on the contrary, merely lymph spaces filled with bacilli, and occasionally containing nuclei and cells. Hence, they would not correspond to our present conception of a cell, properly speaking, but must rather be considered as conglomerations of vegetable and animal elements. Although the opinions of Unna (Skin) and Kühne (Nerves) on this subject coincide pretty much at most points, they present certain differences in a number of minor items, which it will be well to consider before proceeding further. Unna, on the one side, sees in the formations simulating leprosy cells, transverse and longitudinal sections, not only of plugged lymph vessels, but also of lymph spaces of the smallest caliber, and, in gradual transition, to the very largest lymph vessels, thus explaining in a simple and uniform manner the astounding diversity of the so-called leprosy cells in the skin; while Kühne, on the contrary, restricts his analogous conception, as concerns leprosy nerves, to the filling up of true lymph vessels, *i. e.*, of lymph spaces possessed of a special wall of their own composed of pavement endothelium.

The second difference between the opinions of the two authors concerns their conception of the substance between the bacilli and difficulty to stain. While Unna sees in it bacillary mucus (gloca) everywhere, and, consequently, considers Virchow's small "leprosy cells" themselves to be heaps of gloca containing nuclei, and having undergone mucous degeneration, Kühne, on the other hand, retains to a certain degree his opinion on the occurrence of true cells containing bacilli. According to his teaching only the larger heaps are pronounced conglomerations. Unna, on the contrary, has enunciated a perfectly uniform conception of all the formations observed here; the explanation is, that they always arise by accumulations of bacilli being formed in lymph spaces and undergoing mucous degeneration, while the adjacent connective tissue and endothelial cells atrophy and are enclosed in the bacillary mucus. Unna recognizes gloca likewise in the vitreous spaces of the bacillary accumulations, excepting when these spaces are remains of large lymph spaces. Kühne sees in them, first, the remains of large-sized lymph spaces; secondly, coagulated fibrin; and thirdly, if the bacilli are present in cells, vacuoles.

Kühne expresses his opinions on the bacilli in the nerve trunks in the following passages at the end of his work:

“As we have already remarked, the denomination ‘leprosy cell’ (Leprazelle) was selected at a time when the bacillus of leprosy was utterly unknown; at all events, a certainly highly important factor in the correct understanding of the formations in question was still wanting. As, however, it is not sufficient for the explanation of obscure microscopical pictures to appeal to mere similarities, I gradually arrive, by considering all the factors capable of shedding light on the origin of these pictures, at the conclusion that the formations under discussion are not (cell units?) single cells, but sections of vessels filled with fungi.

“Everywhere where the lymph vessels are so arranged that a greater number of them are cut longitudinally in the section, as in a nerve or in a kidney, we find elongated and more or less tortuous accumulations of fungi in greater frequency; where, on the other hand, they are more consolidated and do not lie in one place, as in the lungs, the skin, liver and spleen, the transverse and oblique sections will supervene. This is the case not only in septicemia of mice, but also in leprosy, and sufficient stress can hardly be laid on the question of what will remain of the so-called leprosy cells after the existence of lymph vessels filled with leprosy bacilli has once been conceded, whereby the necessity of accepting transverse and oblique sections of such vessels becomes undisputable, for they must of necessity exist, and their shape can *a priori* be very easily constructed in all its gross similarity to cells.

“If we examine a longitudinal section of a leprous nerve, we find all kinds of accumulations of bacilli in an extremely instructive arrangement: fine linear streaks, thicker, more or less contorted cylinders with or without cellular nuclei, oval heaps of various sizes, some with, others without nuclei, and roundish, larger configurations presenting as regards the nuclei the same conditions. It struck me as peculiar that I never obtained longitudinal sections of bacilli, bearing lymph vessels of a thickness corresponding to the larger heaps of bacilli, as seen in transverse sections. From this it might be argued that these larger heaps, at least, cannot be explained as we propose; but, on further consideration, it will appear more probable that in cases of extensive fungous growth in the lymph vessels there are here and there expanded, becoming

still more bent than they originally are in most cases, so that the absence of recognizable longitudinal sections is readily explained.

“From these considerations I arrive at the conclusion that the bacilli of leprosy find suitable conditions for the formation of colonies first of all in the lymph vessels. Adherent lymph corpuscles and adjacent endothelial cells can also be attacked by them and drawn into the zooglœa. Such free cells can enter the blood with the lymph stream, but seldom or never from adherent colonies there. If, however, the leprosy cells penetrate in this way into other lymph vessels, the penetration of new colonies is again rendered possible. Putting aside the bacilli-bearing cells of normal size, all other more or less extensive heaps of bacilli, with or without nuclei and so-called vacuoles, are not to be considered as cellular units, although one or more lymph corpuscles may belong to them, but as oblique or straight cuts through the lymph vessels. The so-called vacuoles can be found in many different ways and are not at all characteristic of leprosy. The well-stained nuclei, often imbedded in the bacilli masses, are to be considered either as belonging to comparatively healthy lymph cells enclosed in the accumulations, or else as nuclei of the circumjacent endothelial cells.

“If we further take into consideration the improbability of the fungi and cells having a fostering ground in common, a condition which after all cannot be excluded in the attempt to explain the extraordinary increase of the latter, it will no longer be difficult to drop the term ‘leprosy cell.’ It is certainly to the credit of Unna that he was the first to shake our belief on this point, which was already becoming legendary, and that he correctly interpreted the formation of colonies of leprosy bacilli in the lymph vessels and the microscopical conditions resulting therefrom.”

After Kühne, Chassiotis* was the first to demonstrate nests of leprosy bacilli in the spinal cord, and has also expressed himself in a very decided manner in favor of this extracellular localization in these parts. They are found, according to this author, “always in groups, some of which form round or egg-shaped bodies—the so-called leprosy cells—while others present quite irregular—shorter, broad or narrow, straight or bent; in a word,

* Chassiotis, Ueber die beiden anæsthetischen Lepra im Rückenmarke vorkommenden Bacillen.—*Monatsh. f. Prakt. Dermatol.* Bd. vi., 1887.

many various forms. In some preparations the complexity of these figures even exhibits a great similarity to that of injected lymph vessels."

He then continues: "The nerve filaments and ganglion cells remain perfectly free from bacilli, as far as my investigations have as yet extended.

"The round or ovoid corpuscles which are generally accepted as leprous cells are either everywhere more or less replete with bacilli, or else they contain sometimes larger, sometimes smaller isolated heaps of them.

"These corpuscles are enclosed in a glossy membrane (Schleimhülle, mucous covering), as one can convince oneself by isolating them by teasing, whereupon the margin of each corpuscle will be clearly apparent on staining the bacilli deeply. This margin is also visible in the so-called giant cells, where several corpuscles, from 2 to 17, coalesce into one large sphere, remaining, however, separated from one another by their membrane, which takes on the appearance of foam.

"I have never succeeded by any agents whatever in staining the protoplasma of these corpuscles; even though scrupulously avoiding acids, it always remains colorless.

"Staining with methylene-blue without employing acetic acid always shows both the globules and all other bacillary figures perfectly blue, so that the bacilli can be scarcely and sometimes not at all distinguished; but by its aid (and it always yielded me excellent results here) the coloring of the protoplasma immediately disappears, whereupon the bacilli stand forth very clearly, not in blue, but in a bluish-red tint. With this manner of treatment there is hardly any reason for supposing that the acetic acid impedes the staining of the protoplasma; it might much more readily be considered to further it.

"By means of a second stain, applied either before or afterwards, with Bismarck brown or hæmatoxyline (according to Jouton's method) I have never succeeded in staining either the protoplasma or nuclei of leprous cells in the spinal cord. Consequently I arrive, on the strength of my observations thus made with the oil method, at the same conclusions as Unna, who, from the results obtained by his method of desiccation, concluded that 'in the accumulation of bacilli the cell-body is never tinged under any circumstances,' nor is a nucleus to be detected;

and I may well desist from entering further into the numerous arguments raised by Armauer, Hansen, Neisser, Metschnikoff, Jouton, Cornil and Babes, and others, against this opinion. Leloir, however, has also arrived at the conclusion that the leprosy cells have nothing in common with cellular elements, being simply heaps of bacilli and spores. I think I am all the more right in accepting this opinion from the fact that not only was I unable to stain any protoplasm or nucleus, but I also found such multiple forms among the agglomeration of bacilli, especially in the spinal cord, that it seems to me difficult to include them in any one class of cellular elements. They cannot, therefore, but belong to the lymph ducts, which they merely fill up or distend according to their greater or lesser number to spheroid or ovoid spaces."

Chassiotis draws from his own independent studies the same conclusion, expressing himself (translated literally) as follows:

"As regards the so-called leprosy cells, I could not, as far as my examination of the spinal cord extends, by any means convince myself that they are really cells containing immigrated heaps of leprosy bacilli; on the contrary, I believe them to be independent colonies of bacilli localized in the lymph spaces and surrounded by a mucous covering (exactly as described by Unna)."

Leloir made in his *Traité de la lèpre* (1886), the following statement concerning the question under discussion:

"En 1882, j'ai publié dans la Revue des Science médicales un travail sur les affections cutanées d'origine nerveuse, travail dans lequel j'ai considérais la névrite parenchymateuse des nerfs périphériques comme secondaire à l'action locale du virus du micro-organisme de la lèpre sur l'élément nerveux. Les recherches histologiques de Neisser, de Hansen et les miennes ont montré qu'il existait un effet entre les tubes nerveux des bacilles libres ou renfermés dans les cellules d'endonevrite interstitielle dissociant les tubes nerveux. Mais contrairement à Neisser je ne crois pas que les bacilles situés entre les nerfs soient contenus toujours dans des grosses cellules (cellules lèpreuses de Virchow). Je les ai souvent trouvés entre les tubes nerveux à l'état libre, soit disséminés, soit groupés, soit sous forme de grosses boules, d'amas zooglœiques nullement contenus dans un élément cellulaire quelconque. Je n'ai jamais pu constater avec

netteté la présence de bacilles dans l'intérieur des tubes nerveux dégénérés."

In opposition to these fairly concordant statements as to the occurrence of leprosy bacilli within the nerve substance, Lie* has recently essayed to defend Neisser's former opinion on the intracellular localization of the bacilli, chiefly by criticizing Kühne's assertions on the subject.

The reasons given by Lie in favor of such intercellular localization may be divided into theoretical considerations and positive histological findings. In point of fact only the latter have weight in my opinion, for our theoretical reasoning must naturally depend on the positive conditions as we find them, and both must stand or fall together. Nevertheless, I will state the principal general reasons Lie brings forward to prove the intracellular localization of the bacilli in leprosy nerves.

He says: "It cannot but appear somewhat striking to presume that in the nerves the leprosy bacilli are situated in the lymph ducts, while in all other parts they are found in the interior of the cells."

This argument of course only carries weight with those authors who, in the light of former research, place the bacilli within the cells. For others, who see in the so-called leprosy cells either mucus of micro-organism with bacilli, or conglomerations of such with atrophied cells and nuclei, it seems on the contrary quite natural that the conditions are quite the same in the nerves as in the skin, and it would, *vice versa*, be "somewhat striking" to presume that the leprosy bacilli in the "nerves" are *not* situated in the lymph ducts, that being the place in which they are otherwise always found.

Lie then asks further: "Why is it that the bacilli do not grow rapidly right through the lymph ducts of the whole peripheral and central nervous system? The road is straight enough."

In reply to this I would say that, as to the causes of the peculiar predilection of the bacilli to accumulate just in the skin and in the nerves, highly interesting though the phenomenon is, we are, taking all in all, still in ignorance. As regards the skin, Unna, it will be remembered, explains these predilections

*H. P. Lie, Zur pathologischen Anatomie der Lepra.—*Arch. f. Derm. u. Syph.*, Bd. XXIX., 1895.

in great part by the fact that the bacilli avoid as much as possible the tense and resistant tissues, preferring to vegetate in the softer and more pliable ones. I do not feel obliged to answer Lie's question, which perhaps at this time nobody could settle definitely, by a hypothesis of my own. But is it not possible that the same conditions exist in the nerves which Unna has found in the skin? In our whole system we encounter no nerves which are exposed to such extensive excursions during motion as the nerve trunks passing over the elbow and knee joints. It seems to me perfectly logical, considering the deficient elasticity of nerve trunks and the necessity of their locomotion in the movements of the extremities, to assume that they will be most easily moved through the surrounding tissues in those parts where the limbs perform the most extensive movements, *i. e.*, in other words, where they are surrounded by the largest and most yielding lymph spaces. Should this hypothesis be confirmed by further examination, it would, in my opinion, give us the clue for a better understanding of the predilection of leprosy of the medianus and ulnaris above the elbow and of the peroneus nerve.

But when Lie so continues: "Why is the growth of the bacilli through the peripheral nerves so slow, and why is it that bacilli are found so seldom, or not at all, in the spinal cord and in the brain?" I must call his attention to the facts that, firstly, one investigator, Chassiotis, has indeed succeeded in discovering very considerable collections of bacilli in the spinal cord and has published pictures of them;* and secondly, that I should think it far more natural for the cultures of bacilli to increase and multiply at the sites of predilection than for the bacilli to extend from these sites to other less congenial although likewise available regions.

But apart from all this, I cannot quite understand what bearing these questions can have on the cellular theory regarding the bacilli. The defenders of the cell theory must suppose that the bacilli enter the cells very easily, and if they wish to be logical they must likewise suppose that the bacilli can also quite as easily find an exit. In this case one would be quite justified in asking the above same questions of the cell theorists, put in

*Chassiotis, Ueber die bei der anæsthetischen Lepra im Rückenmarke vorkommenden Bacillen.—*Monatsh. f. prakt. Derm.*, Bd. VI., 1887; Jah. vii. u. viii.

this way perhaps: "Why do not the bacilli grow rapidly from one cell along the nerve trunks into another? The road is straight enough; why do they grow so slowly and are so seldom found in the spinal cord and brain?"

In conclusion Lie further makes the following statement: "If the arrangement of the lymph ducts in the nerves is to be credited with so important a rôle in the formation of the above mentioned elongated colonies of bacilli, it must at the same time not be forgotten that just here and in the nerve tissues so many large and especially elongated cells are found as hardly occur in any other parts."

This point gave me more cause for reflection. Lie does not clearly say what connective tissue cells he means. Are they cells of the peri- or the intra-fascicular connective tissue, or are they cells belonging to the blood vessels supplying the nerves? I have in vain consulted all the handbooks on anatomy and histology at my disposal in search after information about such peculiarly long connective tissue cells between the nerves of the peripheral nerve trunks, and I am forced to believe that Lie is the first to describe them. Further on, when discussing Lie's positive findings, I shall revert to my conception of these *besonders lunggestreckten Zellen*.

On one point I quite agree with Lie, viz.: that "theoretical arguments and analogies do not suffice to remove all doubts; the cells and the bacilli they contain must be really demonstrated. The only way thus left us is to make preparations by teasing"—and in this field of positive observation I now desire to follow Lie.

The material at my disposal for examination consisted of the median nerve of a leper, which nerve had been hardened in alcohol. It was imbedded in celloidine and cut into longitudinal and transverse sections. Some of the preparations were immediately stained, after previous maceration in a considerably diluted solution of soda or acetic acid for 24 hours, and some were teased out.

The best pictures of the bacilli were obtained by Unna's method of desiccation.

As methods of staining, I have employed the following: 1, simple coloration with Ziehl and Neelsen's solution of carbolic acid and fuchsine; 2, double stain with this solution of carbolic

acid and fuchsine and orange tannin solution; 3, double stain with hematoxylin and carbolic acid fuchsine solution; 4, triple stain with hematoxylin, carbolic fuchsine and water-blue tannin or orange tannin solution; 5, triple stain with gentian-iodine-vesuvin-eosin; 6, triple stain with carbolic fuchsine-hematoxylin-eosin solution; 7, triple stain with anilin water + safranin-hematoxylin-eosin, according to Lie; 8, simple stain by means of the polychrom-methylene-blue-ferricyanide of potassium — HCl + anililine oil (1:1000), method of Unna, which was particularly serviceable in making the coccothrix condition of the bacilli visible; 9, double stain with vesuvin-carbolic acid-fuchsine, and decolorizing by means of HNO_3 and aniline oil (1:1000); and finally, 10, the ordinary stain with hæmatoxylin and carbolic fuchsine solution. This method, with a certain modification, yielded the best preparations. Permit me to describe it in detail. The sections are well washed in water, and treated as follows:

1. Stain in a freshly prepared solution of hematoxylin (according to Böhmer) for three-quarters of an hour.
2. Wash for some time.
3. Thoroughly apply second stain of dilute carbolic fuchsine solution for twelve hours.
4. Dry gently on a slide with blotting paper.
5. Decolorize by means of a few drops of HNO_3 + aniline oil (1:000).
6. Treat with aniline oil.
7. Treat with xylol.
8. Mount in balsam.

For teasing I only employed sections stained by this last method. They were all longitudinal sections; were obtained by imbedding in celloidin. After removing the celloidin by means of alcohol and ether, the sections were made to swell by placing them for twelve to twenty-four hours in a very dilute solution of acetic acid or soda, after which they were thoroughly washed in water and then submitted to the above process of staining. Instead of being treated with aniline oil, xylol and balsam, the sections were placed in a highly inspissated drop of cedar oil on the slide. After well drying one end with blotting paper, this part was fixed on the slide by means of a thin slip of gummed paper placed transversely over it. The other portion of the lon-

gitudinal section containing all the more important parts was then teased out by the help of two glass rods drawn out to the finest points, in the following manner: I passed both glass points from the fixed end of the section simultaneously and uniformly to the other end, making gentle pressure on the section and dividing it into its several fibres. The drop of thick oil proved very valuable in preventing, as far as possible, any forcible movements and tearing off or infraction of individual nerve fibres. When this mechanical division is well carried out, the connective tissue bands enclosing the longitudinal section laterally and representing the perineurium are the first to separate. Then the fasciculus of the nerve itself disintegrates, forming first coarser then finer bundles, and finally separating into single nerve fibres while the enclosed masses of bacilli are at the same time exposed. When the teasing-out has been sufficiently proceeded with a drop of balsam is applied to the preparation, which on being then covered with a cover-glass and gently pressed upon expands in fan-shape, the fibres spreading out while the other end is still held fast by the slip of paper. This method of teasing the hardened and stained preparations while the longitudinal section of the nerve is fixed at one end is in my opinion the only possible way not only of recognizing each component part after teasing, but also of adjudging to each its correct position within the nerve.

The first positive observation of Lie's, on which he bases his assertion that the bacilli occur in cells between the nerves, is the following. He says: “* * * * dass man gerade hier und im Nervengewebe so viele grosse, besonders langgestreckte Zellen wie sie sonst kaum vorkommen, finden kann,” by which he tries to explain the reason why the bacilli in the nerve trunks are found in such very outstretched colonies—a fact that must indeed be very remarkable and inconvenient to the followers of the cell theory. Unfortunately, however, it has not yet been proved that these “particularly elongated cells” exist at all in the nerve trunks. On consulting different text-books on anatomy and histology (Quain-Hoffman, Orth and Ranvier) I find no mention whatever of these cells. The text-books of the first two authors contain no information as to the minute details of the intrafascicular connective tissue that could be of use in this question; but in Ranvier's “*Technisches Lehrbuch der Histologie*” (Ger-

man translation, 1888, pages 709 and 710) there is a very accurate description of the connective tissue that enters into the individual fasciculi of the nerves, and this is exactly the tissue that especially claims our attention as being the presumptive seat of the bacilli infesting the nerve trunks. According to Ranvier, it consists of connective tissue plates, emanating from the common *leafy* sheath of the nerve trunk (which latter is divided by them into several portions) and serving at the same time as a support and entrance for the blood-vessels, and also of ordinary fibrous connective tissue. Here we are only interested in the latter on account of the cells accompanying it. These cells are described by Ranvier not as spindle-shaped and unusually elongated, but as plates having the shape of concave tills, with irregular contours and no long projections. In adults they are still more slender than in infants. In figure 257, Ranvier gives a very good illustration of these intrafascicular connective tissue cells.

If Lie, therefore, wishes us to accept his remarkably long "bacilli-containing" spindles as such connective tissue cells, it becomes necessary that under the influence of leprosy the normal cells must take on new and hitherto unobserved forms. This hypothesis of Lie's, which, by the by, he has by no means proved, is entirely in opposition to my experience obtained in searching for such cells by tearing out the normal median nerve (freshly treated with osmic acid and alcohol) as well as leprous medianus, for with both my search has been fruitless.

In Lie's illustration, (plate VI., figs. 4, 10, and 11), which are intended to represent such long-drawn-out cells, there is very little similarity to simple connective tissue cells, if only for the reason that they terminate with broad, torn-off ends. As shown by my teased sections, these things may be either non-medullated nerve fibres or empty, detached portions of Schwann's sheath or nucleated isolated pieces of intra or perifascicular connective tissue. That they contain the bacilli seems to me to have been even less demonstrated by Lie than the asserted cellular nature of these attached nucleated fibres. In figures 4 and 10 no one who examines them without previous information on the controversy would be able to detect anything else but small superimposed colonies of bacilli. Nor does figure 12 give me the impression of a colony of bacilli lying free in a connective tissue cell, but

appears to be some torn-off non-medullated nerve fibre, on and into which a nest of gelatinous bacilli has been pressed. If Lie, however, adhering to opinions formerly entertained, has taken the colorless space around the colony to be a vacuole in the protoplasma or degenerated cell protoplasma, a point which he has not fully discussed, he should have at least attempted a histological separation of protoplasma and bacillary mucus, but no mention of this is made in his whole paper. In consequence it must remain undecided what Lie's conception is of fig. 12. In fig 3. (*vide infra*) I have depicted some nerve fibres with adherent colonies of bacilli derived from a teased-out median nerve. These colonies are quite analogous to those in Lie's fig. 12, but they are seen half or quite in *profile*, so that it will be apparent to everyone that we have nothing to do here either with a cell or an intracellular colony of bacilli. And the proof of the colony being completely surrounded by protoplasma, on which Lie lays stress, can only be considered as furnished if one and the same "cell" can be viewed at least from two sides after an axis rotation of 90° without preventing an appearance as in my figure 3 (depressed colonies). This fact of there being colonies of bacilli impressed in the nerve fibres also explains without difficulty the depressed shape of some of the adjacent nuclei.

As to Lie's explanation of his figures 3, 7, 8 and 9 as degenerated nerve fibres, I am quite in accord with him on this point. These tubules appear to me to be medullated nerve fibres, but having lost the greater part of their medullary substance. The nuclei visible in them bear more resemblance to the nuclei of Schwann's sheath than to those of the intra-fascicular connective tissue, and the covering in figure 9 with its double contours can be considered nothing else than an empty nerve sheath. On the other hand, Lie's assertion that the bacilli, in colonies and otherwise, are situated in the interior of the tubules appears to be very far from being proven, and the figures mentioned all admit of the explanation that the bacilli lie on and between the empty nerve tubes, as I have described it in my preparations. While I willingly concede that, as regards the distended colonies, we are not in general dealing with tubular lymphatic vessels filled with leprosy bacilli, still I am far from being inclined to believe that Lie has proved the bacilli to have an endoneural and intracellular localization. By means of my method of preparation, which

shows the nerve fibres spread out in fan shape while in part still connected, it is too evident that the colonies apparently situated in the medullated and non-medullated nerve fibres, are only pressed into these, thus vegetating between them in the lymphatic intestines. If the bacilli of leprosy grew in long chains like the strepto-bacilli of soft chancre, they would probably also grow through the lymph spaces more rapidly without expanding them so frequently. But as the bacilli have the propensity of forming roundish colonies they must of necessity widen the lymph spaces in several places, producing rosary-like shapes and compressing the adjacent nerves and nuclei in proportion.

In figure 1 I have depicted a nerve trunk deprived of its perineurium, moderately teased and slightly spread out, colored with hematoxylin; and viewed under a low magnifying power it presents both elongated and spheroidal and oval colonies of bacilli, stained red with fuchsin. Owing to the teasing and spreading out of the nerve trunk the lymph spaces gape, and consequently the bacilli masses lying on the nerves and in their indentations are for the most part liberated. Many nests disintegrate during the process, forming smaller heaps, in consequence of some portions of a large heap adhering more firmly to the nerve than its other portions. At the terminal, finest, brush-like divided ends of the nerve bundle small colonies of bacilli are seen clinging to the isolated nerve fibres.

Figure 2 shows another nerve trunk, moderately teased out; and seen under a high power its chief value is that it shows the instructive conditions which appear everywhere during the process of teasing, the larger colonies of bacilli are seen at once to be lying in perfect isolation in the forked division of the nerve trunk, as soon as such forked dissolution has been effected (g. fig. 2).

In figure 3 several single nerves of large and small caliber derived from teased-out trunks are represented. The first correspond to the pictures 3, 7, 8, 9 of Lie's paper, and are described by him as excavated (hollowed out) nerves filled with bacilli (so-called nerve tubes, *nervenröhrchen*). The latter coincide with Lie's pictures 10, 11, 12, which he believes to be "particularly elongated cells," containing bacilli. In my opinion these pictures, one and all, represent nerve fibres of different sizes, medullated and non-medullated, the former naturally devoid of

medullary substance, in consequence of having been treated with alcohol; adhering to them, or pressed into them, are a number of colonies of bacilli. I call special attention to *a*, *a*¹ and *b*, *b*¹ in figure 3, which present quite analogous colonies, partly *en face*, partly *en profil*, the former in coarser, the latter finer nerve fibres.

Figure 4 I have had drawn in order to show the natural isolation of the colonies, as regards not only the nerves, but also the very scanty fibres of connective tissue found in the nerve trunks, besides the nerves of various caliber. At *a* there is an especially long colony of bacilli, bounded on the one side by a nerve, on the other by a fine and partly-rent fibre of connective tissue, but without the remotest trace of any particularly large connective tissue cell enclosing bacilli being detectable. At *b* a connective tissue fibre is seen to stretch alongside a slender nerve; it is of very scanty dimensions, as I have generally found the connective tissue fibres in the medianus examined to be, excepting where the blood-vessels penetrating the nerves are accompanied by thicker tracts of connective tissue.

If required to state my opinion on the seat of the bacilli and their relation to the nerves on the one hand, and to the connective tissue endoneurium on the other, on the strength of my histological observations I would say as follows:

1. It is a strikingly remarkable fact that by far the greatest number of all colonies are found on the nerves, and not in the intrafascicular connective tissue, and least of all within the latter's very defectively-endowed cells. We miss, at least in my case, all signs of a reactive increase of the fibrillary connective tissue; there are wanting numerous plasma cells, and large, almost nude (chiefly acid), nuclei, which Unna describes as being always present in leprosy of the skin, and for this reason the fundamental principle that bacilli grow in the lymph spaces is here, in general, more evident even than in the skin. The invasion of the median nerve is accordingly to be explained as a bacillary atrophy of the nerve, due to pressure, and without compensatory hypertrophy of the connective tissue.

2. In opposition to Lie, I must maintain that the bacilli have not been found to immigrate into the atrophying nerve tubes that have lost their medullary substance, but simply rest upon them, and as shown by the pictures *en profil* are pressed into the nerves.

3. The signs of pressure in the nuclei, as described by Lie, are explained quite as readily by an extraneural localization of the augmenting colonies of bacilli as by an intraneural one (Lie).

4. The "*besonders langgestreckten Zellen*" of the endoneurium brought forward by Lie as proof material do not exist at all in my opinion, and the appearances which they present probably refer to non-medullated nerves with superimposed accumulations of bacilli.

DETACHMENT OF THE RETINA; SARCOMA OF THE CHOROID; SYMPATHETIC PHENOMENA; ENUCLEATION. By WILLIAM B. MEANY, M.D., Member of the American Medical Association, etc., St. Louis.

A young lady, aged 18, consulted me for a "defect of vision," which she stated had been troublesome for a long time.

She complained that the vision in the left eye had been impaired for the past two years, and has been gradually growing worse; until some three months prior to her visit she was unable to perceive light. The patient did not complain of pain in either eye, or impairment of vision in the right.

A four-grain solution of the neutral sulphate of atropia was instilled into the left eye so as to dilate the pupil sufficiently to permit of an ophthalmoscopic examination.

Left eye.—Iris normal; cornea and lens, with its capsule, clear; inflammation of the choroid; detachment of the retina, with plastic retinitis; vision abolished. Right eye.—Hyperemic disc; retinal veins appeared to be somewhat tortuous; disc cupped, which was readily distinguished from the physiological excavation; field of vision limited.

A pair of London smoked coquilles to protect the eye from light was ordered, and an appointment for the following day was made. A week later I was sent for by the family physician, who stated that the patient had been confined to her bed with an "ugly" attack of rheumatic fever. The patient complained of severe pains in both eyes, that came on suddenly and had continued for the past forty-eight hours. Ophthalmo-

Fig 2.



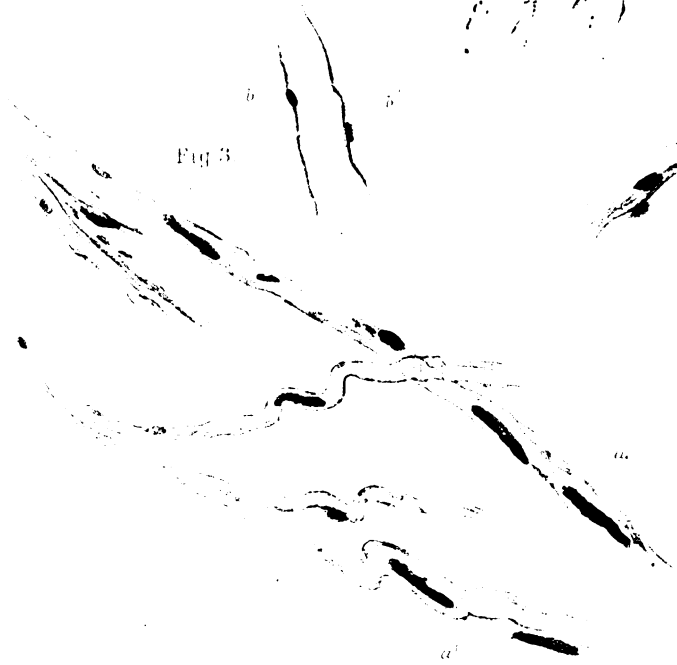
Fig 1.



Fig 4.



Fig 3.





scopic examination showed the site of a choroidal growth that appeared to be malignant, and detachment of the retina in the left eye. There was pronounced exacerbation of the pathological conditions in both eyes as first described.

Right eye.—Iris and ciliary vessels injected; conjunctiva red and irritable; marked sensitiveness in the ciliary region, with photophobia.

A four-grain solution of atropia was ordered to be instilled into the eyes three times daily. Enucleation of the left eye was proposed, with the assurance that the disease would be limited in its effect to the right eye, and perhaps arrested, and if neglected renewed paroxysms would come on continually until complete destruction of vision in the right eye supervened.

The patient hesitated for a few days, desiring in the meanwhile to consult with the members of her family before submitting to the operation. Chloroform having been administered, a fold of the conjunctiva on the inner side of the eye was seized with a pair of forceps and divided with a scissors at the corneo-scleral juncture, along its entire circumference, the tendons of the muscles caught up with a strabismus hook and divided, the globe turned firmly outward and forward, a pair of scissors curved on the flat introduced closed into the wound on the nasal side of the eye; the blades being separated permitted of easy division of the optic nerve some distance from its ocular attachment. The globe was then brought out of the orbit and the oblique nerve and vessels divided. The cavity was then carefully syringed with a cold antiseptic solution, which appeared to arrest the slight hemorrhage which usually follows the operation. A suture uniting the superior and inferior margins of the conjunctiva was introduced, a *rondelle* of wet cotton wool inserted between the eyelids, a compressive bandage applied and permitted to remain for twenty-four hours.

The dressings being removed, a slight suppuration existed, which succumbed very readily to a warm solution of salt and a ten-grain lotion of Squibb's borax. The conjunctival stitches were removed on the third day following the operation.

Ten days after the operation a mild grade of conjunctivitis appeared with orbital neuralgia; and learning that the family physician had prescribed strychnia, this on consultation was discontinued. When the eye appeared to be free from irritation, it

was considered necessary to paralyze the accommodation in order to ascertain the exact state of the vision. For this purpose a four-grain solution of atropine was ordered to be instilled into the eye. The accommodation being fully suspended, $V + 1D = \frac{6}{V_1}$.

The patient, twenty-five days after the enucleation, is quite comfortable, and is enabled to read the finest type with ease, the sympathetic phenomena having entirely subsided.

This case is one of great importance in a clinical sense, showing the necessity of enucleation of blind eyes from persons, in whom one sound eye remains, as a prophylactic measure. We have in this case a typical one of the so-called sympathetic ophthalmia, where the eye has been rendered useless by disease and attended with inflammation of the uveal tract in the left, and exhibiting evidences of corresponding *irritation* in the right eye. A most happy effect was gained by enucleation, in arresting and subduing the irritation which threatened to develop into destructive *inflammation* of the right eye. The operation of enucleation is wonderfully benign, and if carefully performed does not in the least interfere with the adjustment of an artificial eye, whose motility will be as perfect as if resting upon a shrunken globe, besides being free from the dangers of a shrunken remnant of a lost eye that may at any moment become inflamed, and acting in the same prejudicial manner as an injured or diseased eye before having parted with its contents or a portion of its structure.

The microscope showed the neoplastic growth situated at the posterior pole of the choroid to be a spindle-cell sarcoma; there were disseminated patches of inflammation scattered over its surface; the detachment of the retina was evidently due to this malignant growth. I saw this patient more than *fifteen years* after the operation; she has suffered no inconvenience from the wearing of an artificial eye; with the exception of having an addition of one-half a diopter added to her eye-glass, she has required no other treatment.

The following case came under my observation as Medical Director of the American Exhibition, London, 1887:

An employe of the exhibition, aged 45, was struck by a "chip" from a metal bolt, in the right eye, three days prior to his visit to the medical headquarters.

On examination I found a wound in the ciliary region above, chemosis, no reflex from upper portion of the fundus; $V=\text{xxiv}^6$.

This patient, for reasons unknown to me, did not return again for ten weeks.

Right eye.—Scar in ciliary region; painful, cicatricial contraction; turbidity of aqueous; lens clear; no reflex from fundus; perception of light abolished. Left eye.—Media misty; a light photophobia, which lasted for three days; $V=\text{vi}^6$.

The right eye was enucleated in the usual way.

The following changes were found in the enucleated eye: the chip of metal being imbedded in the retina and choroid just behind the equator, and firmly held in position by lymph; the piece of metal appears to have passed through the ciliary body above, missing the lens.

The wound is filled up with abundant nucleated tissue, in which some sclerotic fibres are seen; the ciliary muscle fibres were much degenerated at this part. Except at the papilla, the vitreous was detached posteriorly. Retina showed definite inflammatory changes, especially in region of disc, which was slightly swollen. Choroid inflamed, the inflammation spreading from the wound and site of foreign body.

It is evident that further delay in operating would have resulted in serious damage to vision in the wounded eye.

Enucleation at an early stage should be insisted upon where eyes have been crushed by blows, that are the site of neoplastic growths that may become malignant. Eyes that have been penetrated by foreign bodies, which are not removable, which belong to patients who cannot be trusted either to take proper care of themselves or to return if threatened with sympathetic irritation.

I had this patient under my observation for some eighteen months after enucleation; he has been free from discomfort, no untoward symptom appearing in his remaining eye.

2602 Locust Street.

Special Staining Methods in Microscopy, Relative to Animal Tissues and Cells.

6. ELASTIN AND ELACIN. By DR. P. G. UNNA, Hamburg, Germany. Translated by A. HABERMAAS, M.D., St. Louis.

A. SPECIFIC STAINING OF ELASTIN.

The value of orcein (Grübler's) in acid solution, for the differentiation of elastin, is at present universally recognized. In this method we fortunately possess a process of universal application, and one in which a simple technique is productive of a remarkably clear differentiation of histologic structure. I should therefore have been content to refer to my former publications on this subject if this method had not since been simplified and improved upon by my preparator, Mr. Max Colhoun.

An old discovery, and one often employed by me with good results, is that stains in spiritous solutions act much more effectively if care be taken to provide for a slow evaporation of the spirits in the solution; for, as the spirits evaporate, the solution becomes more concentrated; and when it reaches that stage at which the dye begins to precipitate, and at which many molecules are in a state of suspension, a most effectual means is obtained by which the preparation is forced, as it were, to accept the stain. As unwise as it would be to permit a spiritous solution to evaporate prior to using, just so advantageous it is to submit the preparations to be stained to the action of the fresh molecules of dye while the latter are in process of precipitation. Such a solution deposits its dye mainly upon the contained sections instead of the walls of the containing vessel. As the addition of basic substances is to aqueous solutions of basic dyes, or the addition of acids to aqueous solutions of acid dyes, so the evaporation of the spirits of spiritous solutions is for the improvement of stains.

The staining of elastin with acid orcein is thereby much simplified and improved. The following solution should be kept on hand:

Orcein (Grübler).....	1.0
Acid hydrochloric.....	1.0
Alcohol absolutus	100.0

The sections, with or without celloidin, are placed in a porcelain dish and enough of the staining solution is added to cover

them; then the whole is put in a warm place. If no warm stove or incubator be at hand, an alcohol lamp may be placed a hand's width under the dish and ignited. The temperature of the dish must not go beyond 30°. In ten to fifteen minutes, according to the quantity of the solution and the amount of heat employed, the solution will be so far evaporated as to present a thick, heavy, yet thoroughly liquid, mass. At this point the procedure must be interrupted, for the sections must, of course, not be permitted to dry; and all elastin is then permanently and specifically stained. The sections are then thoroughly washed in dilute alcohol and placed in a small dish of water, where they are permitted to remain for some time, then in absolute alcohol, oil and balsam.

It is not absolutely necessary to wash the sections in water before mounting, but advantageous to do so, to remove all traces of hydrochloric acid; at the same time the orcein becomes fixed by the water. Likewise this process is to be recommended if it be desired to make after-stains, especially with basic dyes (methylene-blue).

It is not necessary to complete this process in twenty minutes as described. The sections may be kept in the above solutions for a night, and in that event may be allowed to slowly evaporate by incompletely covering the dish. By this means a better and more permanent stain is obtained than in solutions of a constant consistency.

By this stain collagen assumes a light-brown color, which contrasts nicely with the dark-brown color of the elastin. If it be desired to stain the elastin alone, upon a light back-ground, the section should be taken out of the dilute spirits and placed into muriated alcohol before placing in water.

Orcein, in acid solution, is an excellent stain for elastic tissue; and the latter assumes a stain, weak to be sure, even though it has already lost some of its properties; when, for instance, its chemical nature has become so far changed that its fibre takes up basic dyes in alkaline solution. I have designated this altered portion of the fibres as elacin, and have described its occurrence in the various retrogressive processes in my work upon the Histopathology of the Skin. I have been enabled to show, in the chapter upon "Striæ," that elacin has lost a portion of its elasticity as compared to elastin.

B. SPECIFIC STAINING OF ELACIN.

Definition.—By elacin we mean the substance of such fibres which closely resemble those of elastin, but differ chemically in the respect that they take up basic dyes in alkaline solution.

Accordingly, under the definition elacin we imply two conditions: a fibrillar structure, resembling that of elastin; and staining properties, differing from those of normal elastic tissue. Since the structure of the fibrils presents only a few modifications from that of normal elastic tissue, such as greater width, less tortuosity, and fewer ramifications, the undiscovered presence of elacin, under staining methods thus far employed, may be accounted for; but for the positive demonstration of this substance, the execution of a "tinctorial reaction" is necessary. Even the best elacin staining process, with orcein as just described, is not applicable, since the elacin fibres are also stained, though, of course, less markedly than those of elastin. The presence of elacin may therefore be suspected in such preparations of elastin as present a great number of weakly-stained fibres; even then, however, we may simply be dealing with a weakening of the stain and not to the presence of elacin.

I have already given three good and easy methods for the positive demonstration of elacin, which will shortly be considered more in detail. I shall begin with the methylene-blue orcein method. It is the *same as* that employed in the specific staining of collagen, protoplasm and mast cells, and whose chief advantage lies in a very simple tinctorial differentiation of collagen from protoplasm. I will add, however, that this is not the best method of demonstrating elacin; but the basophilous elacin is strongly stained by the polychrome methylene-blue solution, and, since it is but slightly stained by neutral orcein, it will stand out clearly. Since this methylene-blue and orcein method is usually tried first on sections, it is only necessary to observe whether in this collagen-protoplasm stain there be any blue-stained, stem-like rounded fibres within the tissue, which might be taken for elastic fibres; and since true elastin is never seen by this method, we are certainly dealing with elacin.

However, I consider this method of demonstrating elacin only a preliminary step to direct the attention to its presence, and for this reason of some advantage. In order to demonstrate the fibres of elacin to the best advantage, another staining method

is required. For this purpose I recommend tannin, to be used on sections previously stained with polychrome-methylene-blue. The sections are kept in a solution polychrome-methylene-blue (Grübler) for ten minutes, then carefully washed in water, and are then placed in a concentrated (33 per cent.) aqueous solution of tannic acid. The sections are then allowed to remain in water for some time in order to remove every trace of tannic acid, after which they are dehydrated in alcohol and finally placed in oil and balsam. The fibres of elacin appear dark blue and stand out distinctly against the dark-blue background of collagen. Elastic fibres are not stained by this method.

It is advisable at first to prepare this simple elacin stain without making any counter-stains, since this method gives a most complete demonstration of elacin. Beside elacin, nuclein (blue or violet), keratin (violet), mast cell granules (violet), and a number of micro-organisms are also stained.

The second good stain for elacin is obtained with saffranin by the water-blue-saffranin method. In this method the elacin fibres appear red upon a blue background. The sections are placed in a one per cent. solution of water-blue for a few minutes, and are then placed in a one per cent. aqueous-saffranin solution, previously mixed with a little aniline and filtered. In this they are allowed to remain for three minutes, are then placed in a watch glass of dilute spirits, to which a drop of acid alcohol has been added and thus removing the excess of saffranin, and finally dehydrated in absolute alcohol placed in oil and balsam. By this method, also, nuclei, horny layer, mast cell granules, and a variety of organisms show the same red-saffranin stain as the elacin. Now and then a few fibres of elastin are faintly visible, but appear blue, so that they cannot be mistaken for the red elacin fibres.

In many cases it will be of great importance to stain both substances, elastin and elacin, in the same section; partly to control, partly to study the transit of one to the other. For this purpose it will be most convenient to employ the simple after-stain with methylene-blue to the sections previously stained with acid-orcein. But this beautiful, much-used counter-stain will not suffice for the demonstration of elacin.

As already stated, the acid solution of orcein stains elacin somewhat, and the solution of methylene-blue cannot so

completely modify the color of the elacin fibres as to prevent the reappearance of the secondary blue after treatment with alcohol. Here the treatment with tannin proves of advantage. The blue of the elacin is thereby fixed, and a beautiful contrast of brown elastin and dark-blue elacin fibres is obtained. The sections stained with acid-orcein are now placed in a solution of polychrome-methylene-blue for about fifteen minutes, and after rinsing with water are placed for ten minutes in a concentrated aqueous solution of tannin. Hereupon the sections are again thoroughly washed in water, placed in absolute alcohol, oil and balsam.

The after-staining of elacin with saffranin is simpler than that with methylene-blue, for here the use of tannin is unnecessary. The sections, after being thoroughly stained in acid-orcein, are placed in an aqueous solution of saffranin for five minutes, subsequently placed in absolute alcohol, oil and balsam. The red elacin fibres contrast beautifully with the brown elastin fibres, as they merge one into the other.

I can recommend the skin of the face of older persons subjected to much exposure as an easily obtainable material for the study of elacin. Especial attention should be directed to the well-developed elacin fibres of the undermost layers of the cutis, above and between the coil glands; and the remarkable modifications of the upper layers of the cutis should not be heeded, for here many complicated conditions are present, only to be understood by reference to the simultaneous alterations of collagen.

Only when elacin has been repeatedly demonstrated and carefully examined by the described positive methods it will be of advantage to examine into the question how much of the description thus far given of elastin may apply to elacin. As is known, the various methods of elastin give no very like results, and of the fourteen varieties known to me for the demonstration of elastin a number (as those of Manchot, Mibelli and Schültz), employ basic dyes in neutral solution.

It is thus absolutely necessary in future to test every method for the demonstration of elastic tissue as I have done with the orcein-method to determine whether and to what extent elacin is thereby demonstrated; and accordingly to complete it by a description of clear, simultaneous counterstains of both substances.

FORMULÆ FOR THE SPECIFIC STAINING OF ELACIN.

I.

Isolated demonstration of elacin.

- (a) 1. Polychrome-methylene-blue solution, 10 minutes.
2. Water.
3. Concentrated (37%) aqueous tannin solution, 15-20 minutes.
4. Thorough washing with water.
5. Absolute alcohol, oil, balsam.
- (b) 1. Water blue (1%).
2. Water.
3. Solution of saffranin (1%) in analine water, 3 minutes.
4. Dilute spirits, with addition of one drop of acid-alcohol to a watch glass, a few seconds.
5. Absolute alcohol, oil balsam.

II.

SIMULTANEOUS DEMONSTRATION OF ELASTIN AND ELACIN.

- (a) 1. Rapid coloring with acid-orcein, by the method demonstrated.
2. Polychrome-methylene-blue solution, 15 minutes.
3. Water.
4. Concentrated (33%) tannin solution, 10 minutes.
5. Thorough washing with water.
6. Absolute alcohol, oil, balsam.
- (b) 1. Rapid coloring with acid-orcein solution.
2. Water.
3. Aqueous saffranin solution (1%), 5 minutes.
4. Water.
5. Absolute alcohol, oil, balsam.

A Polish Medical Society has been organized in Chicago, and will be known as the "Towarzystwo Lekarzy Polskich." Drs. E. Czerniewski, D. Dowiat, M. Orglert-Kaczorowska, J. P. Kaczorowski, M. P. Kossakowski, W. Kuflewski, J. Piszczak, W. J. Sieminowicz, W. Statkiewicz, B. F. Strzyzowski, J. Ziolkowski, and R. L. Lande are the founders of the society.

CONGENITAL TEETH. By E. S. McKee, M.D., Cincinnati, Ohio.

February 22d, 1896, the author was called to see Mrs. L., a multipara, in labor at the eighth month of gestation. Twins, both male, were soon delivered. One was found to have the two inferior incisor teeth present, both children being small and poorly developed. The mother was a small woman. Both teeth were loose, and one dropped out at the tenth week. The child died at the twelfth week, the one tooth being lost; the other is still in my possession. It died suddenly and away from home; the physician who attended ascribed cause of death to meningitis.

The premature eruption of teeth I supposed due to some abnormal development of the bone; probably most cases have some connection with rickets, and appearances would indicate that this child had rickets. In some children who cut their teeth very early the fontanelles close early, but not in those cases where the teeth are congenital. The enamel is very thin in these teeth and the teeth are without roots. The first of these teeth to cut through was in danger of dropping out all the time.

Congenital teeth are quite rare. Paris *Maternity* reports, out of 17,578 births, between 1856 and 1863, only three cases of congenital teeth—about 1:6000. Out of 500 cases collected by Magitot in 1876, in which the eruption of the first teeth was noted, only one was congenital.

Ballantyne in the *Edinburg Med. Journal* for May, 1876, reports 70 cases gleaned from the literature.

Premature labor in the case of congenital teeth has occurred in the cases of Crausius at the sixth month, Helwig at the seventh, and Lamm, which is reported as occurring prematurely, and the author's case at the eighth month.

Hair was noted as well as teeth in the cases of Bartholin, a tuft of yellow hair on the left cheek as well as two molars. Schrurig also reports a similar case. Precocious mental development does not seem to follow premature eruption of the teeth, only one case, Mattei's second, a girl of 5 years; nor does the opposite seem to be indicated. Perhaps this idea has gained credence from Pliny. The early closure of the cranial sutures and fontanelles in association with congenital dentition has been claimed by Mackenzie, but Jacobi has never noted it, and

Forchheimer has found large fontanelles and diastatic sutures quite as common.

Etiology of congenital teeth is probably best described as the premature occurrence of the processes which normally lead to the cutting of the milk teeth; in a few instances it is probably due to a true ectopia of the dental follicle and its tooth. The extraction of teeth in the mother occurred in the cases of Flesch. She had ten teeth extracted in the third month, and in the writer's case two teeth were also extracted in the third month. The mental influence of this is a matter of conjecture.

Inheritance is shown in the case of Mattei—the infant's mother had also been born with a tooth; and in Limrick's case the mother had two congenital teeth, her second child, a boy, had the same anomaly, and her sister's child, a girl, also had two congenital lower incisor teeth.

Molar teeth are only reported by Jacobi, Bartholin, Bouchut and Kaufmann.

Treatment.—A tooth dangling uselessly and aimlessly in the mouth should unquestionably be removed, otherwise a safe rule is to let it alone.

The teeth are sometimes so situated as to prevent complete closure of the mouth, to make nursing painful and futile, and to endanger the nourishment or life of the child. Under these conditions the way is clear for action. Magitot probably magnifies the danger from hemorrhage in extracting congenital teeth. Having lost one child, he lays down the rule never to extract these teeth. The hemorrhage recurred on four separate occasions and proved fatal in spite of all treatment. This is the only case where serious hemorrhage followed. If the child is puny and delicate, perhaps syphilitic, hemorrhages are possible. Some writers claim the possibility of no milk teeth appearing to fill the vacancy. They serve as a curiosity for medical men and students—a sight many do not get to see in a life-time.

Shakespeare mentions the subject quite frequently: In Richard III., the Duchess of York says: "Marry, they say my uncle grew so fast, that he could gnaw a crust at two hours' old; 'twas full two years ere I could get a tooth."

Queen Margaret: "That dog had his teeth before his eyes."

King Henry VI.: "Teeth hadst thou in thy head when thou wast born; to signify thou cam'st to bite the world."

Richard: "For I have often heard my mother say I came into the world with my legs forward; the midwife wondered, and the women cried, 'O Jesus, bless us, he is born with teeth.' And so I was, which plainly signified that I should snarl and bite and play the dog."

In English and French history we hear of the mention of Richard III., Louis XIV., Richelieu, Mirabeau and Mazarin as being born with teeth.

Jacobi.—"The Intestinal Diseases of Infancy and Childhood," pages 102 and 103, 1887; "Congenital Molar Tooth;" *N. Y. Medical Journal*, XXXV., page 70, 1882.

Forchheimer.—"Diseases of the Mouth, non-Surgical," *Archives of Pediatrics*, VI., page 691, 1889.

Kaufmann.—*Medical Record*, XLII., page 589, 1892.

Magitot.—*Gazette des Hopiteaux*, XLIX., pages 412, 427, 1876.

Schürig.—"De Fœtam Dentibus," page 207, 1732.

Pliny.—"Natural History," Lib. VII., C. 16, 1601.

Bartholin.—"Historical Anatomy," Cent. 1654.

Mackenzie.—*N. Y. Medical Journal*, XXXV., page 70, 1882.

Ballantyne.—*Edinburg Medical Journal*, May, 1896.

Vargas.—*Loc. cit.*

Buist.—*Loc. cit.*

[It may not be inappropriate to mention in this connection a case of congenital teeth observed at the St. Louis City Dispensary Oct. 20th, last. The child was colored and five days old when brought. It had two lower incisor teeth, and the father requested that they be extracted because the mother complained that in suckling the child bit her nipple and caused much pain. They were removed without trouble, giving evidence of being loosely attached. The child suffered no pain whatever from the little operation. Upon examination the father declared that he also was born with two teeth just like his child. If this be true it would go to support the theory that this is a congenital defect.—O-D.]

THE ANTISEPTIC POWER OF SOME PREPARED ANTISEPTIC SOLUTIONS. By G. C. CRANDALL, M.D., Professor General Medicine and Director of Bacteriological Laboratory, Marion-Sims College of Medicine, St. Louis.

In a weak solution of one of the prepared antiseptics, which has stood for some time in the laboratory, I observed bacteria growing, and it occurred to me that in using such solutions they are frequently diluted to an extent which renders their antiseptic power nil, or at most very feeble; especially did this seem true of those preparations which contain only feebly antiseptic elements. In order to ascertain the power of some of these solutions to check the growth of bacteria, I made a series of experiments with virulent cultures of three characteristic germs, viz., anthrax, diphtheria and streptococci. As a culture medium I used bouillon. The solutions tested were borolyptol, pasteurine, euthymol and listerine. To the sterilized bouillon in tubes, I added the respective antiseptics in amounts ranging from $\frac{1}{2}$ per cent. to 50 per cent.; inoculated the tubes with one of the species of germs and placed in the incubator, that the conditions for development might be as natural as possible. The results show a marked difference in the power of these preparations: while the first two are active in relatively weak solutions, the last two must be used in very strong solutions. The general composition of these preparations, so far as can be ascertained by the formulas, is similar; but the first two contain the element formaldehyde, which doubtless enhances their antiseptic power, and the second preparation contains in addition the oil of cinnamon, another very efficient antiseptic. These two elements appear to be well adapted for use in prepared antiseptics, as those solutions which contain them certainly far surpass in antiseptic power the two which do not possess these elements.

The volatile and diffusable properties of formaldehyde render it more effective as a rapid antiseptic than the other elements we find in these preparations. The following table indicates the strength of solution required to entirely check the development of the above mentioned germs, and the strength as indicated in the table would doubtless suffice for checking the development of other germs.

Strength Per cent.	$\frac{1}{2}$	1	2	5	10	15	25	50
Borolyptol	—	—	+	+	+	+	+	+
Pasteurine	—	+	+	+	+	+	+	+
Euthymol	—	—	—	—	—	+	+	+
Listerine	—	—	—	—	+	+	+	+

The plus sign indicates positive results, and the minus negative results.

As these preparations may be used pure or slightly diluted, depending upon the conditions for which they are applied, the table shows how much greater antiseptic action we may expect from some than from others. These preparations are now so much used in minor surgery, gynecology, laryngology, dentistry, etc., that it is important they should be used in sufficient strength to be antiseptic. We should recognize the fact that when applied to mucous surfaces they are further diluted by the secretions, and some allowance must be made for this. The table indicates how much more some of these preparations may be diluted than others, and still exert marked antiseptic action. These preparations are often prescribed for the patient's use where carbolic acid or bichloride would be dangerous or offensive, and in prescribing them their relative strength should be considered.

Another Experiment in Corpore Vito.—Recently two healthy and robust physicians, aged twenty-six and thirty-five, were selected by the Imperial German Health Bureau to undergo an interesting experiment to ascertain whether aluminum is poisonous or not. These two gentlemen, in order to test the non-poisonous properties of aluminum, volunteered, every morning for one month, to swallow fifteen grains of aluminum tartrate with their lunch. At the end of the trial neither of them had lost flesh or appetite or experienced the slightest discomfort during the entire period of their metallic lunch. It was found that the metal is not adapted, however, to contain for a long period brandy, whisky or wine.

A correspondent writer, in the London *Electrical Engineer*, on the subject, states that he has used cast aluminum cooking utensils for over twelve months and that they have given both the cook and the consumer every satisfaction without any fear of poisoning, as when copper utensils were employed. Dental plates are also now made of aluminum, which, besides having only a fraction of the weight of gold plate, possess the additional advantage of producing no disagreeable taste in the mouth.

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Editorial.

DISILLUSIONS.

As we have already intimated, the path of the young medical graduate is one beset with thorns. Another phase, purely subjective, to which we desire to allude, is of his own upbuilding, and is dependent in great part upon his own preconceived and distorted ideas and notions. When an undergraduate, many is the covert sneer and malicious smile he indulges in, when perchance he hears an old practitioner make a remark on some medical or surgical topic. The poor old dotard is not "up to the times," or he is "an old foggy who belongs to the last century." Our modern, ultra-scientific babe in diapers criticises his senior in language more forcible than polite, and proportionately magnifies his own acquirements, talents and capabilities. He is very glib at quoting his text-books and some of his professors in the hope of proving himself not only an apt scholar, but a well-read one. He cannot appreciate the temerity and transparency of the sham he is attempting upon others, and labors under the delusion that he alone reads medical works. He becomes puffed up with the

vanity brought about by his parrot-like exactness in answering quizzes at the college he attends. In fact, he arrives at that stage when he considers himself a well-informed man, because, forsooth, his professors have told him that he was an apt student. He considers this a sufficient reason to make attempts to hector over older and better-informed, if more modest, members of the profession, and thereby succeeds in making himself either disliked or ridiculed by those whose friendship he should sedulously cultivate. Unknown to himself he has already begun to build an opposition which he will have occasion to regret for many years afterward.

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As an undergraduate this class of young men succeeds most thoroughly in making himself disliked, and laying a foundation for a future which will promise to be anything but agreeable. Our undergraduate succeeds in obtaining a diploma, and then does he come forth in the full glory of his self-authoritative knowledge. Of course, he joins a medical society as soon as the opportunity offers. Here it is that he finds an arena wherein he can air his attainments and distribute mines of knowledge with a lavish hand. Here it is that he is permitted for a time to disport himself until, at some fatal moment, a gray-haired Nestor in medicine flays the gay and jocund neophyte in practice in such a manner as to completely take the wind out of the sails. This is the signal for his wrath to begin to boil, and deep and direful are the resolves he makes to get even with his tormenter. However, this is but the merest beginning of the trials in store for him. He is not only corrected in public, but twitted in private by those of his own age, and his self-esteem and pride make the punishment assume the traits of the fiendish machinations of the evil one himself. Fortunately such tortures cannot last indefinitely. Sober reflection finally asserts itself, and the truth finally dawns upon his mind, and he begins to see things in their true light. The scales fall from his eyes, and he appreciates many things at which he formerly sneered. It is then that the illusions which formerly existed have begun to become shattered. The period of disillusion steps in, and the time which has been lost is regretted more than once. Its true value is appreciated, and the regrets become the greater from the fact that time is so

short that it never affords a chance to recover lost opportunities. Impressions that have been made of a disagreeable nature can never be effaced, and nothing but vain repinings remain to the one who has been so short-sighted in his acts and words.

*
* *

We cannot enter into an analysis of the young medical prig. He is numerous, and he soon falls to his proper level. Not possessed of sufficient intelligence to command the respect of others; not pleasant enough to gain their good-will; not interesting enough to be admired; and not talented enough to evoke enthusiasm, he very soon cuts a sorry figure indeed among his professional brethren. The fulsome praises showered upon him, when he began what his friends fondly hoped would be a meteoric career, are nothing but a hollow mockery when considered in connection with the more serious details of real, earnest life. All who have passed some small portion of life have had their disillusions. These awakenings to the sordid, concrete facts of reality are more or less rude, and produce greater or less shocks. But to none are the disillusions of life more acute than to the medical man. The younger and more shallow he is the greater are the disillusions. The more modest, the more industrious, and the more retiring the medical student and young graduate the greater will be the harvest of honors and sheaf of friends, and the smaller the number of disillusions.

We may seem somewhat severe upon some of our young medical friends; but this is a mistaken idea. None will ever be found more ready to espouse his cause and battle for him, providing that his cause be just. None will be quicker to encourage him in work of a legitimate character, and none more ready to unmask sham and pretense. We may add that the latter are not the peculiar appanages of the young men, but older ones are guilty of these vices, superadding deceit with that cunning acquired by the experience of age. At some near time in the future we propose to give these the benefit of a few truthful thoughts evoked by their conduct. For the present, let "the day be sufficient for the evil thereof."

Dermatology and Syphilology.

Treatment of Pruritus Vulvæ.—P. Ruge (*Berlin. klin. Woch.*) insists on the importance of sepsis of the genital organs (vulva, vagina, and cervix uteri) in the treatment of this form of pruritus. All the accessible parts should be thoroughly washed with soap, and a solution of corrosive sublimate applied with the fingers as long as may be necessary for complete disinfection. Carbolized vaseline (3 to 5 per cent.) is then smeared over the affected parts. The washing must be repeated every three or four days. By means of this treatment Ruge has effected permanent cure even in pregnant women and in elderly persons. He finds the same method successful in cases of acute vaginitis with profuse discharge. In this condition the washings and the sublimate applications are repeated daily.

Injections of Calomel for Syphilis.—Dr. Louis Jullien remarks (*Archives Générales de Médecine*) that the subcutaneous method possesses two advantages: the liver and the alimentary mucous membranes are spared. Dilatation of the stomach is frequent in old syphilitics, cirrhotic changes have been noted in the liver, and even hepatic neurasthenia, a variety of syphilitic neurasthenia, may be produced. The vehicle used is liquid vaseline; the dose varies from one to two grains, according to the size of the individual; the locality is preferably the supra- and infra-spinous fossæ of the scapular region; strict asepsis must be enforced, and the interval between the injections varies according to circumstances; it may be from eight to twenty or more days. Among the advantages can be cited the promptitude of its effects, the intensity of its action, and the persistence and positive character of its cures.

The Absorption of Drugs by the Healthy Skin.—The *American Journal of Medical Sciences* states that Drs. G. Linossier and M. Lannois conclude that volatile bodies, notably those which, in spite of a high boiling-point, possess a certain vapor-tension at ordinary temperature, can be absorbed by the healthy skin in amounts well beyond the usual therapeutic doses. This absorption is regular, subject to invariable laws; for the two drugs studied, guaiacol and methyl salicylate, the dose can be

made according to the therapeutic indication as well as if they were to be absorbed by the intestinal tract. Some remedies can thus be employed in massive doses without risking any disturbance of the digestive functions which might follow their administration by the mouth. Apparently methyl salicylate can be administered by the skin as an advantageous substitute for the use of sodium salicylate given by way of the mouth.

Infantile Syphilis.—Coutts (*British Medical Journal*) gives the results of his studies on this subject, summarized from the Hunterian lecture:

Regarding parental influence in infection, he finds a syphilitic mother much more potent in infecting than a syphilitic father. As far as prognosis in treatment goes, it makes no difference whether the father or mother is the infecting agent. In syphilis by conception the mother's entire or partial immunity is caused by the production of antitoxins in her body which increase with successive pregnancies.

Marasmus and congenital atrophy of the secretive and absorptive surface of the intestinal tract are considered among the most important symptoms of inherited syphilis. While first symptoms commonly appear in the second month, they may be delayed twelve months. Visceral disease (enlargement of spleen and liver) was found in most cases. Bone-lesions were less often observed; pain was often absent in syphilitic epiphysitis; supuration was rare, usually seen in the long bones in children old enough to walk. Acquired syphilis is always accompanied by a chancre, followed by roseola and often sore-throat.

The author calls attention to two propositions embraced in Colles' law—one that the mother of an infant with inherited syphilis cannot acquire it from the infant; the other, that such an infant would infect a healthy wetnurse. Coutts has found inherited syphilis very feebly contagious, while acquired syphilis is actively so. In practice the only limitations he would place on nursing would be that the mother or wetnurse should have no excoriations on the nipples and that no ulcerations or fissures be present on the mouth of the infected infant.

Resorcin in Dermatology.—Dr. M. B. Hartzell believes (*Ex.*) that this drug possesses keratoplastic and decided sedative properties, the latter making it a valuable application in the

large class of diseases in which itching and burning are prominent and often extremely annoying symptoms. Although supposed to be too irritating to be of use in eczema, yet in many of the milder forms it often proves extremely serviceable in allaying the pruritus and diminishing the hyperæmia; in the oozing forms, when the inflammation is not too acute, it often acts most happily in diminishing the discharge and favoring the speedy formation of cornified epithelium. Many cases of erythematous eczema will recover under the judicious use of this remedy alone. It does best when used in watery solutions of the strength of from ten to fifteen grains to the ounce; rarely is it necessary to use stronger ones. Ointments are far more apt to irritate. The addition of $\frac{1}{2}$ per cent of sodium chloride seems to increase the sedative effect of aqueous solutions, possibly by favoring the absorption of the drug by the skin. It is thus absorbed in considerable quantities, as is shown by a marked greenish discoloration of the urine, which, however, never appears unless salt is added to the solution. As a parasiticide, a paste of resorcin, two to three; lanolin, vaseline, powdered zinc oxide, and powdered starch, of each four parts, has been efficacious in the treatment of favus. The various forms of trichophytosis have been markedly benefitted by an ointment containing thirty or forty grains to the ounce. Although this is not superior to other remedies of this class, it has the advantage of being cleanly. In tinea versicolor an alcoholic solution of twenty to thirty grains to the ounce may be painted over the affected area with a camel's-hair brush, nightly, until desquamation takes place. If the cure is then not complete, it may be repeated a second or third time.

The Treatment of Iodism.—Dr. Briquet recommends the use of extract of belladonna, one to two grains daily, in order to avoid the nasopharyngeal symptoms (*Semaine Médicale*). Sodium bicarbonate, in dose from ninety to one hundred and eighty grains, seems to benefit the general manifestations of the poisoning. There is some possibility that if administered at the same time with potassium iodide the latter would be converted into the sodium salt and its therapeutic effect weakened. Sodium chlorate in daily doses of ninety grains has been recommended, but no statement is made as to its value (*Am. Jour. Med. Sc.*). The employment of salol in obtaining intestinal

antisepsis promised good results, but further experience has shown that the method is uncertain. Sulphanilic acid in from forty to sixty grains *per diem* will fix the nitrous acid, which, remaining in a free state, would decompose the iodide. In addition a diet poor in nitrates, as milk, bread, and meats, should be insisted upon. Morphine possesses, as its only recommendation for this purpose, the diminution of gastric irritation. Antipyrin, besides diminishing the urine, is entirely untrustworthy. For the eruptions, antisepsis of the skin is important; baths and lotions of lime permanganate (1:25,000) are useful. The best method, however, is the preventive. Always commence with a small dose (seven grains), and gradually increase the amount. Large quantities of milk and even diuretics are prescribed with the drug. The fault is in this instance in diminishing its therapeutic action in facilitating elimination, which frequently is already too rapid. Of particular accidents, hemorrhage should be treated by ergotin, salivation by potassium chlorate, edema of the glottis may necessitate tracheotomy. Frequently the symptoms which rise in its early use may disappear entirely, even if the drug be continued.

Dr. Calomenopoulo found that in the case of an old syphilitic who was absolutely intolerant of the potassium salt, even when given in small doses, when ninety grains of sodium chlorate were given each day it was possible to administer forty-five grains of potassium iodide without any untoward symptoms (*Jour. des Prat.*). This was continued for about forty days.

Degenerative Changes in the Brain-cells of the Non-Insane.—Dr. Robert Hutchison, in *Edinburg Hospital Reports*, from a histological examination, finds that the brains of the sane and insane show similar changes. With the exception of general paralysis of the insane there is little that is special to the insane pathologically. Pigmentation-cells, for example, are to be found in all sorts of people, especially after middle life. He throws doubt on the association of vacuolation of cells with epilepsy. He falls back upon the nebulous hypothesis of inherent instability of the brain.

Medical Progress.

THERAPEUTICS.

Clinical Observations Upon Trional. — Dr. J. B. Busdraghi, formerly assistant to Prof. C. Lombroso, writes the following (*Correspondencia Medica*):

Among the many hypnotics now at our disposal, those which occupy the most prominent place in medical practice are morphine, chloral, sulfonal, tetronal and trional.

I deem it entirely useless to treat of morphine or of chloral, not only because every treatise upon medicine and pharmacology and materia medica studies them extensively, but also because any practitioner of the slightest experience possesses personal knowledge in regard to them both.

The same cannot be said in regard to trional, since the investigations concerning it are recent and as yet somewhat limited in number.

Another remedy that in late years has enjoyed an excellent reputation as a hypnotic is sulphonal; notwithstanding this, a fairly large number of objections have of late been brought to bear against it—some of them quite justified, while others have been exaggerated at times, probably for the purpose of giving greater importance to some similar preparation. We have employed it upon an extensive scale, both in several clinics and in private practice, and truth compels us to state that it has rendered us most valuable services.

Among other defects of sulfonal must be mentioned its action upon the blood, which prevents our giving it to anemic subjects. It also shows an irritant action upon the kidneys, as the urine becomes red (hematoporphyrinuria), compelling great precaution when it is employed in people in whom these organs are affected—as in the old, or in convalescents from acute febrile diseases, or from acute or chronic intoxications.

Lastly, our literature registers cases of poisoning by sulfonal, some of them followed by death.

Hence we lacked a remedy possessed of the same or of superior efficacy to sulfonal and without its faults. From our personal experiments, we may assert that it may be found in trional.

This is a white, transparent substance, of slightly bitter taste, soluble in 320 parts of cold water, and a little more readily soluble in hot water. It may be administered in a watery solution, in cachets, or in other vehicles, in a daily dose of 1-4 grammes.

We sought to employ it in cases in which sulfonal had failed or caused some disturbance. Our investigations bore upon ten subjects: four children less than ten years old, three men and three women. I will describe them briefly:

1. *Chorea*.—Boy seven years old, poorly developed, anemic, with all the characteristics of his disease. Cured in twenty-five days with static electricity and one gramme of trional daily.

2. *Bacillary Meningitis*.—Girl five years old, with muscular atrophy, vomiting, insomnia and nocturnal agitation. Trional caused sleep and quiet.

3. *Rachitis*, in a girl four years old, profuse sweats, diarrhea and insomnia. Same result.

Convalescence from Scarlet Fever, with parenchymatous nephritis, albuminuria and insomnia, which was overcome by trional.

5. *Cerebral Apoplexy*.—Man sixty-three years old, with degenerative hemiplegia; much troubled by insomnia. Trional was given in two-gramme doses.

6. *Chronic Poisoning by Copper*, in a man aged fifty-five, through abuse of a remedy containing this metal; asthma, nephritis, cystitis, and nocturnal agitation, with insomnia. Trional proved effective in two-gramme doses.

7. *Neurasthenia*, in a man thirty-three years old, with the characteristic signs of this disease and marked insomnia. This was relieved by two-gramme doses of trional.

8. *Hysteria*, in a young woman of twenty-seven, characterized by frequent convulsive attacks and nocturnal agitation, with insomnia. She improved markedly with the same doses.

9. *Nervous Disturbances of Pregnancy*, in a young woman aged twenty-four, with insomnia and suicidal tendencies. Excellent results with the same doses—two grammes.

10. *Anemia*, in a young girl aged nineteen, with great debility and insomnia. Trional gave her quiet sleep.

We would have liked to describe the cases at greater length, but preferred to speak of the results obtained.

Trional was well borne in all the cases in which we employed it, showing a prompt and safe hypnotic action.

It occasionally happens that a patient is unable to take it, as it may cause nausea and, in rare instances, vomiting. For this reason it is best to give a fairly active purgative before the trional, which must only be administered an hour or two after eating.

It is also necessary to select light articles of food, avoiding salads, salt fish, dried fruits, etc., and especially iced or alcoholic drinks. It may be given, as we have already suggested, in wafers; it is a good practice, however, to follow it with a couple of cups of infusion of linden or of chamomile, quite hot.

The use of trional may be continued for a long time, since harmful effects are never or at least very seldom observed. In all cases it is well to give at the same time some of the gaseous mineral waters, such as seltzer or Apollinaris. In Spain such waters are abundant in nearly all the provinces.

Sleep occurs about half an hour after having taken the medicine; it is quiet, placid, perfectly similar to physiological sleep; the pulse and respiration, which before were restless and nervous, are quieted. It lasts for six or eight hours, giving the patient a sense of well-being obtained with no other hypnotic.

In the second case the effects were not as evident as in the following ones, as might have been supposed when dealing with so serious a disease as bacillary meningitis. Still it was beneficial and well borne.

In the fourth and sixth cases, in which we had to deal with renal lesions, the trional was perfectly well borne, and it being our custom to examine the urine we failed to find any sign to disprove this statement.

In neurasthenia and the nervous disturbances of pregnancy we had already given chloral and sulfonal with negative or with harmful results; trional, on the contrary, gave satisfactory results.

Even in anemia it was given with success, being well tolerated and without the phenomena observed with sulfonal.

From what we have stated, we conclude that trional is the best hypnotic known, and that it may be prescribed both in children and in weak and nervous persons with confidence in the results and without fear of damaging after-effects.

Analgesic and Sedative Effects of Lactophenin.—Dr. H. D. Peterson, in a "Clinical Report on Lactophenin" in the *Chicago Med. Recorder*, says: "Among the newer remedies of this class (analgesics and antipyretics) is lactophenin, one which so far seems to offer the best results with the least ill effects. Clinical tests have shown it to be of especial value in relieving pain and reducing temperature gradually, and maintaining it at a lowered degree without frequent repetition. It is not disagreeable to the taste and is easily administered. The dose is 5 to 10 grains, and 45 grains may be given in a day. In doses of 15 grains it acts as a gentle hypnotic."

The author then reports a number of cases, from which we epitomize:

M. F., aged 37, laborer, suffered for years from periodical attacks of articular rheumatism, often preventing him from working. Lactophenin in 8-grain doses four times daily completely relieved him from pain; other remedies, especially salicylates, had failed.

Mr. W., aged 40, business man. Long troubled with insomnia and frontal headache; extremely nervous from want of sleep; a 10-grain powder of lactophenin at bedtime dispelled headache, and sleep followed; no unpleasant symptoms in the morning.

Mr. S., aged 27; periodical attacks of migraine. One 8-grain powder of lactophenin entirely relieves.

Mrs. D., aged 20, housewife; severe headache accompanying typhoid fever. Headache disappeared and did not return after 8-grain dose of lactophenin; no noticeable effect on temperature.

Mrs. B., aged 25; facial paralysis on right side and neuralgic pains on left side. An 8-grain dose of lactophenin relieved the pain and produced sleep.

Dr. Peterson concludes, that "where speedy relief from pain is desired lactophenin offers as good results as any remedy at our command."

Thyroid Therapy.—J. B. Herrick (*Medicine*) from a review of the observation of various clinicians throughout the world on the therapeutic effects of thyroid extract in various diseases, thinks himself justified in coming to the following conclusions concerning that remedial agent: (1) It is curative in myxœdema (idiopathic, cretinism, operative). (2) Many cases of obesity are cured by it. (3) Simple hyperplastic struma, particularly if

in the young, is frequently cured or improved. (4) In (1), (2), and (3) the remedy has to be continued for an indefinite time to prevent relapse. (5) It may prove of value in some cases of tetany. (6) In skin diseases it is of doubtful value, to say the least. (7) The same is true of mental and nervous diseases. (8) In exophthalmic goitre it is contra-indicated. (9) The results are practically the same whether fresh glands, extracts, or dried glands are employed. (10) This is probably true also of the thyro-iodine of Baumann.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Bacillus Smegmatis and Tubercle Bacillus.—Grethe (*Fortachr. der Med.*) points out the need for some simple method of differentiation of the smegma bacillus from that of tubercle. In one case a kidney was removed as tuberculous, supposed tubercle bacilli having been found in the urine; it was found, after operation, that there was only calculous pyelitis. Other similar errors have been recorded, and it is suggested that in such cases the mistake arose from confusion of the bacillus smegmatis and the bacillus tuberculosis. Inoculation of animals being seldom available for the diagnosis, various staining methods have been suggested. These have mostly proved unsatisfactory. Grethe has found, however, that reliable results are obtained by staining with concentrated alcoholic methylene-blue. This stains the bacillus smegmatis well, and if the preparation be first stained in the ordinary manner with carbol fuchsin, tubercle bacillus, if present, is easily identified by its red color contrasting with the blue of the rest of the preparation, including the bacillus smegmatis.

Carbon Bisulphide Poisoning.—Stadelmann (*Berl. klin. Woch.*) showed before the Berlin Medical Society three cases of this condition occurring in workers in a rubber factory. The symptoms were very variable, consisting of digestive disturbances, muscular weakness, tremor, ataxia, increased and sometimes diminished knee-jerks, etc. The occurrence of three such cases within a short period of time showed that the hygienic conditions in the factory were far from satisfactory. The author is of opinion that the disease is more frequent in Germany than is generally believed. In the discussion Mendel observed that he had seen many such cases. The mental symptoms consist of

mental weakness, dementia, loss of memory, etc. He had seen considerable improvement on removing the cause and adopting suitable treatment. Bernhardt said that the poison may affect the peripheral nerves, and give rise to a degenerative neuritis and paralysis. He also called attention to the statement of French writers, that carbon bisulphide poisoning can give rise to hysterical manifestations. Some of the symptoms certainly resemble hysteria. Kronig referred to a fatal case in a patient the subject of Bright's disease. Marked anæmia was present, but Kronig could not find any alteration in the blood cells. There was marked mental depression. The patient gave rambling answers, and was forgetful of what he had just said. Romberg's symptoms was present, and there were articular pains, but no disturbance of sensation. Kahlischer thought that the disease presented the characteristic features of a toxic affection of the nervous system such as is found in poisoning by alcohol, lead, etc. Stadelmann in reply said that he had found no changes in the optic disc. He did not altogether agree with the French view in regard to the relation of hysteria to this disease.

The Passage of X Rays Through the Tissues.—Batelli (*Archives Italienne de Biologie*) has investigated the transparency of the tissues and body fluids of man and other animals. He gives tables of the densities and transparencies as compared with water of 35 body solids and 9 body fluids. Of the former lungs and fat are the most, and horn and bone the least, transparent; of the latter the two ends of the scale are formed by the aqueous humour and milk. His general conclusions may be thus summarized: The transparency of the tissues to Roentgen's rays varies in general inversely as their density, but there is no exact proportion between the two. There are three chief exceptions to this rule—tendon, blood, and skin being more transparent than other and lighter tissues. It appears that in liquids the quality of substances in solution exerts no appreciable influence provided that the density remains the same. The transparency of a given tissue diminishes with, but less rapidly than, increase in its thickness. By an ingenious apparatus Batelli has also shown that the retina is for all practical purposes insensitive to the x rays.—Dutto (*ibid*) records that observations on the opacity of calcium salts to the rays induced him to inject calcium sulphate in the form of plaster-of-paris into the brachial artery. The substance

was sufficiently liquid to penetrate the smallest vessels, and when it had set a skiagraph showed that the vessels had become more opaque than the bones themselves. The interosseous vessels, and even numerous little muscular branches, could be distinctly seen, and the author concludes that the method will be of great service in anatomical investigations and demonstrations.

Preservation of Urinary Deposits.—Gumprecht (*Centralbl. f. inn. Med.*) first draws attention to the convenience of preserving these deposits for teaching purposes. Even chloroform is not well adapted for this object, the formed elements being thus injured. Red blood cells perish rapidly in the preserving fluids hitherto used. Glycerine has been employed after a deposit has been obtained from the urine by means of the centrifugal machine. Here the albuminous elements become too transparent, and the red cells are destroyed. The author's method consists in obtaining a deposit by the centrifugal machine. This deposit is then placed in a concentrated solution of corrosive sublimate and centrifugalized again. It is then washed and preserved in a solution of formol. The hardening in sublimate may be omitted if no red blood cells are present. If there is much albumen the deposit may be washed with advantage in normal saline solution. If the urine contains urates the deposit should be washed with warm water or a concentrated boracic solution. The washing of a deposit by means of the centrifugal machine has long been in use in the laboratory. No washing is necessary if sublimate is not used. The strength of the formol solution may vary from 2 to 10 per cent. The author says that urinary deposits thus preserved can hardly be distinguished from fresh deposits. Cover-glass preparations may be made, but it is well to wash off the formol. The cells maintain their shape, and the nuclei of the cells take the stain in the usual way. Casts, and especially red blood cells, are well preserved. Fat is readily distinguished. Micro-organisms are easily recognized even when unstained.

MEDICINE.

Lithemia.—The general practitioner frequently encounters a class of cases in which the chief symptoms seem to depend upon a functional disturbance of the liver in connection with an increased formation of uric acid and urates. Murchison was the first to group these cases under the head of "Lithemia." In many re-

spects this trouble closely resembles gout, so that by some authorities it has been designated "American Gout." As regards treatment, it is well to remember that, as recently pointed out by Haig, the elimination of uric acid is greatly influenced by the condition of alkalinity of the blood. He believes that remedies which increase its alkalinity will also increase the solubility of the uric acid stored up in the various tissues so that it is more readily taken up into the circulation and excreted by the kidneys. In Lycetol the physician possesses a remedy which will not only exert an alkaline effect on the blood, but manifests a strong affinity for uric acid, keeping it in a soluble state, and facilitating its elimination. Dr. Gaston R. D'Aulnay has recently reported very successful results from its use in the different forms of the uric acid diathesis. Several patients suffering from gravel passed much larger quantities of uric acid within a short time after its administration. In a case of gout attacks were completely aborted by giving lycetol for a number of days before the time when one was expected. Nephritic colic in lithemic patients was also prevented by administering it for some time before an expected attack. On the ground of his experience the author claims that lycetol is an excellent remedy against the uric acid diatheses, that it is superior from the curative point of view to all the remedies employed for the same purpose, that it has the further advantages over the latter of having diuretic properties, of not being hygroscopic, of having a pleasant taste, and, therefore, of being capable of administration in solution if desired.

Cyst of the Thyroid Body.—Mr. A. Carless operated at King's College Hospital (*Ex.*) on a young woman, æt 23, a domestic servant, who had for some months noticed a swelling in the neck; it caused her little inconvenience, except that at night she had to lie with her head high; she was not anæmic, did not come of a goitrous family, and her general surroundings had been satisfactory. The swelling had the usual characters of a goitre, but was limited to the left side of the isthmus and neighboring portion of the left lobe; it was either a cyst or an adenomatous tumor. An incision was made along the anterior border of the sterno-mastoid, the platysma and deep fascia divided, the homo-hyoid drawn outward, and the sterno-hyoid and sterno-thyroid inwards, thereby exposing the surface of the tu-

mor. By a little manipulation the swelling was easily isolated and displaced forwards through the wound; its deep attachments were then divided and ligatured and the cyst removed entire, together with a small portion of the surrounding tissue; there was comparatively little bleeding, and the wound was closed layer by layer without any drainage tube. Mr. Carless pointed out that the term goitre was often somewhat loosely applied to different conditions of the thyroid body; three distinct varieties should be distinguished: the simple or parenchymatous goitre, the solid or partially cystic adenoma, and the true cystic goitre; not infrequently the two latter are associated together. It is important, he said, to recognize this distinction because the operation needed must also vary. In a simple or parenchymatous goitre, which consists of a diffuse enlargement of the whole gland, Kocher's operation of extirpation of one lobe should be undertaken, where, however, a localized solid or cystic tumor is present Socin's plan of enucleation is all that is required; in this the capsule should be incised and the tumor shelled out, a proceeding which is usually unaccompanied by any serious bleeding.

DISEASES OF WOMEN AND CHILDREN.

Women and the Bicycle.—Hogg (*Prov. Med.*) cites the opinions of a number of French, English, Belgian, Spanish, Holland and Switzerland gynecologists as to whether bicycling is beneficial or not to the health of women. The greater number agree, as Auvard, Chaput, Dolers, Treub and Vulliet, that, as a rule, where it is not carried to excess in women with healthy genitalia, it is a profitable exercise; while a few others, among them Tait, condemn bicycling for women. The harmful influences which this exercise has is dependent upon its being overdone, the general health suffering; or upon faulty position and imperfect construction of the saddle, local diseases being produced. Women who have chronic inflammatory disease of the genital organs should not be allowed to ride a bicycle, since it causes hyperemia of these parts and thus accelerates the disease. A large number of French and other gynecologists believe that bicycling is a healing factor in disturbances of nutrition, as neurasthenia, hysteria, chlorosis, dyspepsia, etc.; also in chronic constipation, anemic amenorrhea and nervous dysmenorrhea.

Penetrating Wound of the Abdomen in a Gravid Woman.—Dr. Micheli reports the case of a woman, aged 19, who received two stabs in the hypogastric region when six months pregnant. Both wounds penetrated the abdominal cavity, the one about 2 cm. to the right of the linea alba, and about 5 cm. from the pubes, the other somewhat higher up on the left side. Laparotomy was performed immediately. It was then found that, instead of two external wounds, there were four wounds of the uterus, two on the right and two on the left side. The first two only affected the serous membrane. The lower one of the two on the left side penetrated into the uterine cavity and pierced the amnion. The uterine wounds were united with Lembert sutures. The patient went on well up to the third day, when severe pain set in, and on the fourth day she aborted a six months' fetus. A fortnight later she had a slight pleural effusion, from which she soon recovered, and she was now, two months after the operation, in perfect health. The fetus was dead, and presented a wound 13 mm. long, penetrating into the left pleural cavity, the small intestine wounded in two places, and fibrino-purulent peritonitis.

Subcutaneous Emphysema in Labor is reported by Dr. Mace. The patient, after being two hours in labor, felt a sudden pain at the level of the left breast. The neck and cheeks soon became swollen; the eye-lids could scarcely be opened. The forceps were at once applied and the child delivered, so as to save the patient from the danger of further efforts. The emphysema disappeared within a fortnight. In Depaul's case the patient died, though the forceps were applied directly the symptoms were detected. Greslou, in discussing Mace's case, stated that he observed subcutaneous emphysema, in a primipara of twenty-four, also after two hours' labor. During violent pain she felt that her right cheek was swelling, and the air penetrated rapidly into the cellular tissue of the face and neck. At the next pain a male fetus, nearly nine pounds in weight, was expelled—Greslou refraining from using the forceps, as the labor was clearly ending of itself. The emphysema vanished within a week. Mace recommended a little opium after delivery. Gueniot thinks that the narcotic is unnecessary. The patient should be forbidden to draw a deep breath, and must be kept perfectly quiet until the effusion of air disappears.

The Causes for Sterility in the Female are enumerated as follows by Graefe (*Centralblatt für Gynakologie*): Anomalies of the hymen or malformation of the genital tract—a very large vagina can also be the cause of sterility, as the sperm flows out immediately after coitus; vaginismus; excessive acid reaction of the vaginal mucus, which destroys the power of motion in the spermatozoa; narrow external or internal os, ante flexion, retro flexion, endometritis, gonorrhea (especially with involvement of the adnexa), neoplasms; constitutional diseases, as tuberculosis, syphilis, chlorosis, and obesity.

Spontaneous Separation of Symphysis in Childbed.—Cerné (*Rev. Obst. Intern.*) writes of a woman, aged 20, who was delivered spontaneously, but was seized a few days later with symptoms of uterine infection, due probably to gonorrhea. The symphysis pubis parted so widely that the tip of the finger could be made to push the integuments between the pubic bones. Free intrauterine injections of permanganate of potassium were employed, without any further treatment. The septic symptoms disappeared altogether, and the relaxation of the symphysis apparently cured itself.

Ectopic Gestation and Accessory Tubes.—Jacobs (*Annales de l'Institut St. Anne*) refers to Säger's case (*Monats. f. Geburtsh. u. Gynäk.*) where abdominal section was successfully undertaken for an ectopic pregnancy of the "abdominal" type; the child being saved as well as the mother. The right fallopian tube, completely closed at the end, adhered to the fetal sac. The left tube bore an accessory canal perfectly permeable; it ended in ostium surrounded by fimbriæ. Through this orifice the fertilized ovum must, in Säger's opinion, have passed. Jacobs removed a large fibrosarcoma of the uterus. One tube was over 3 inches long; its canal perfectly open. About a quarter of an inch behind the ostium was an unusually well-developed accessory tube nearly an inch in length. It divided into two branches, which each were patulous like its main canal, and each ended in an ostium with large fimbriæ. The plicæ of the abnormal canals were continued from those of the natural channel of the tube. It is easy to see that an impregnated ovum might have escaped into the abdominal cavity in this case.

Veratrum Viride in Puerperal Eclampsia.—According to *Jour. Am. Med. Ass.*, Dr. C. D. Hurt says (*Atlanta Clinic*) veratrum viride is a nervous sedative, a muscular relaxant, a glandular excitant. When taken into the system it lessens the susceptibility of the sensory nerves, and modifies the action of the spinal cord and vasomotor nerves. At the same time, if coma exists it has a property of removing it and restoring the mental functions. Other remedies for puerperal eclampsia have their places, and some of them are valuable; but no one meets all the indications, as does veratrum viride. Taken internally chloroform acts as a sedative narcotic, operating chiefly through the nervous system, independent of vascular action or congestion or without any beneficial influence on the latter condition. Veratrum is a sedative, operating through the nervous system, relieving coma, and removing congestion and eliminating certain effete matters by stimulating the secreting organs. Bromid of potash and chloral are too feeble, unreliable and slow in their action. Morphin stupifies, lessens pain, but is objectionable in locking up the secretions. Apomorphia produces greater distress with fewer good effects. Venesection is admissible in all robust patients or cases of plethora, by removing a certain amount of effete matter from the system and encouraging easier and more rapid dilatation of the os. Indeed, with venesection and the judicious use of veratrum there is no condition of the os not dependent upon actual stenosis which will not yield to parturient pains and avoid the necessity of incising—a surgical dexterity into which some obstetricians are easily tempted. Veratrum is suited to the treatment of eclampsia, whether ante-partum or post-partum, unless chronic disease or excessive anemia be present.

Diabetes Insipidus in Childhood.—Eichhorn (*Jahrbuch. f. Kinderheilkunde*) describes a case of this disease in a boy aged ten. He investigated the relation between the quantity of fluid taken in and that of urine passed. Taking a healthy boy as a control, and giving to both the same quantity of fluid *per diem*, he found that the diabetic patient after the first twenty-four hours passed more than three times the amount of urine passed by the other. Attempts to reduce the amount of fluid taken by this patient had to be abandoned after twelve hours, owing to the severe constitutional disturbance set up. Polyuria, how-

ever, continued during this period, notwithstanding the reduction. The author gives a summary of the views of Strauss, Senator, Falck, and Neuschler on the mode of productions of the polyuria and then discusses the etiology of the disease. In this section he gives a valuable collection of previously recorded cases. He describes cases of diabetes insipidus occurring in connection with certain specific infectious diseases, such as diphtheria, cerebro-spinal meningitis, measles, scarlet fever, etc. These must be distinguished from the cases of transient polyuria described by Spitz, which occur during convalescence after certain specific fevers, especially typhoid. In these cases the polyuria last from six to eight weeks, and is not accompanied by polydipsia. This condition is probably due to altered composition of the blood. Cases are also recorded in which degenerative changes have been found in the sympathetic system, notably in the coeliac plexus and the great splanchnic nerves. In two of these cases there was found ulceration of the intestines.

SURGERY.

Reduction and Fixation of Fracture of the Zygomatic Arch.—Dr. Randolph Matas describes (*N. O. Med. & Surg. Jour.*) his method in a case of fracture without laceration of the overlying tissues (*Jour. A. M. A.*): As the injured area was extremely sensitive, a general anesthetic was administered. The usual antiseptic precautions were carefully observed. A long, full curve (semi-circular) Hagedorn needle, threaded with silk as a carrier, was made to penetrate the skin about one inch above the midpoint of the misplaced fragment, and was carried well into the temporal fossa under the broken bone. Then the point of the needle was raised and made to emerge about half an inch below the lower border of the broken arch. As the needle was pulled out a strong silver wire about one foot long was attached to the silk carrier and dragged through the track of the needle so as to form a metallic loop under the misplaced bone. By twisting the ends of the wire together a loop was formed which permitted strong and easy traction to be made on the broken fragment. Traction was begun by pulling directly upward and outward. The misplaced fragment yielded and instantly returned to its normal position with a snap. The contour of the arch was immediately restored, and the displaced fragment showed no disposition to relapse into its abnormal position. Notwith-

standing the apparent permanency of the reduction, it was not deemed prudent to trust the fracture without a more permanent support, and the following simple plan was adopted to secure permanent fixation: An ordinary glass slide of the kind used for mounting microscopic sections, after careful sterilization, was wrapped in a layer of iodoform gauze and placed over the seat of the fracture with its greatest length corresponding to the long axis of the zygoma. The slide was long enough to rest upon the malar prominence anteriorly, and upon the temporal root of the zygoma posteriorly, thus resting upon two fixed points. After twisting the wire firmly over the splint, it was evident that the bone could not be displaced. The dressing was then completed by applying a layer of sterilized gauze and absorbent cotton over the slide as a dressing, the whole being held in place by a roller-head bandage.

On the second day following the reduction, a thin shell of vulcanite or dental rubber, molded to the shape of the normal zygomatic prominence, was prepared by a dentist and substituted for the glass slide. The wire which held the fragment in position was not removed, but twisted over the vulcanite shield. The new splint was now covered with a layer of absorbent cotton soaked in flexible collodion, and applied without any additional dressing. The patient was confined to his room only twenty-four hours. On the ninth day the wire, splint and all dressings were permanently removed. There has been ever since (about fifteen months) a total absence of scar, deformity or inconvenience,

GENITO-URINARY SURGERY.

Traumatic Peritonitis and Rupture of the Bladder.—
Dr. Warden reports a case as follows (*Medical Rec.*):

Joseph C——, twenty-three years old, woodsman, came to the hospital at midnight on April 8, 1896. He had been drinking heavily all day and had been unable to urinate since four o'clock in the afternoon. One hour before admission, during a drunken brawl, he was twice kicked in the abdomen. The patient complained of great pain in the hypogastrium and was in a condition of partial collapse. Examination showed a small ecchymotic area in the right iliac region, the abdomen much distended and painful, and the bladder rising above the umbilicus. Catheterization brought away sixty-four ounces of bright bloody urine

The following morning at seven o'clock the patient's condition was not improved. Forty-eight ounces of urine tinged with blood came away by the catheter, giving the man no relief. Distention and tympanitis were evident. The patient developed a general peritonitis. Subsequent catheterizations brought away a normal quantity of urine unmixed with blood.

On the evening of April 10th only a few drops of thick, dark-colored urine could be obtained. The man died on the following morning. The autopsy showed the abdominal cavity filled with serum, the intestines distended, agglutinated, and covered with patches of lymph. A portion of the ileum lying in close relation to that portion of the abdominal wall which received the blows was gangrenous to the extent of four inches. The kidneys were normal and both ureters intact. The bladder was partially filled with clear urine. At the fundus of this organ was found a complete laceration, one-and-a-half inches in length, running posteriorly. The edges of the tear were uneven and gangrenous. The organ was otherwise in a perfectly healthy condition.

A diagnosis of rupture of the bladder was not offered without reservations. The quantity of urine drawn off at regular intervals during the man's sickness would indicate that the bladder retained its contents perfectly, and consequently the peritonitis could not have taken origin from leakage of urine, but from the lesion of the gut alone.

It seems probable that the rupture of the viscus extended primarily through the mucosa and muscularis coats, the serous covering remaining intact until a few hours before death.

Use of Argon in Gonorrhea.—Dr. Swinburne (*Jour. Cut. and Genito-Urinary Dis.*) recommends the use of a 10-per-cent. solution in the acute stages. The inflammation is quickly allayed and the discharge rapidly diminished.

Formaldehyde in the Treatment of Gonorrhea in Women.—Prof. De Smet (*Rev. Int. de Méd. et de Chir.*) has obtained excellent results with this remedy in more than sixty cases in which he has employed it. After washing the vulva with a warm one-per-cent. aqueous solution of formaldehyde (or formol or formalin), he introduces a speculum and pours into the vagina a stronger solution, one of from two to five per

cent. Then with a swab he works the solution into intimate contact with all the nooks and crannies of the vagina and the cervix uteri. If the cervico-uterine cavity is affected, he injects a two-per-cent. solution into it. If the cervix is ulcerated, he places a large tampon of cotton and gauze impregnated with a one-per-cent. solution in the vagina, and leaves it there for two or three hours. These applications are said to be painless. They are to be repeated daily or every second day, according to the features of the case.

In a one-per-cent. solution, formaldehyde exerts a slightly caustic action, which is shown by a blanching of the mucous membrane. In a five-per-cent. solution, especially in a vaginal tampon impregnated with it, it produces a veritable burning of the mucous membrane, but this action is transitory and causes no inconvenience. A diminution of the discharge takes place after a few applications, and it soon ceases altogether. Severe cases, especially those in which there is fungous blennorrhagic endometritis, call for more prolonged treatment and occasionally for operative interference, by curretting, for example; but even in these cases formadelhyde is the most efficacious adjunct that can be used. Its action is so rapid and so sure that it should be used in all cases of gonorrhea in women.

A Case of Gonorrhea, Complicated with Double Epididymitis, in a Twelve-Year-Old Boy.—Dr. Cox says (*Ex.*) it is very seldom indeed that his "Satanic Majesty" encounters one so young "prowling" about the premises of the "demimonde," and receiving admittance into the realms of that unholy sanctum, as was the case in the instance about to be recorded, and it is a sad commentary on those who follow prostitution as a profession (or means of livelihood) that one so young should be admitted into such a house. But worse than that—than all—that he should be the unlucky and unfortunate victim of a gonorrheal virus, with double epididymitis as a complication, which not only occasioned great suffering, but brought sorrow and mortification to his honorable parents.

L. M., the subject of this paper, twelve years of age, of medium size for one of his age (excepting the "offending member"), not especially precocious, closely watched by his scrupulously religious parents, and not allowed to associate with other boys, lest something damaging to his moral or spiritual welfare

might result, consulted his grandmother about a "dreadful burning" in his penis when he made water, and she, thinking it a slight trouble, gave him some flaxseed tea and a few pills to move his bowels. The boy not improving under her treatment, I was called, and found him in the following condition: His penis was inflamed and swollen; temperature, 102° F.; enlarged lymphatics; excruciating pain in the inguinal region; testicles immensely swollen; dysuria; bowels constipated. Owing to the epididymitis, there was almost complete cessation of the gonorrheal discharge, which subsequently recurred after the subsidence of the acute inflammation of the testicles.

He gave a connected history, after being assured that I would not divulge the secret, which clearly established the etiology. The usual remedies which are indicated in such cases were prescribed. There is nothing in the case to attract attention but the tender age of the subject.

G. J. L.

DISEASES OF THE NOSE, THROAT AND EARS.

The Relation of Chronic Disease of the Nose and Throat to Disorders of Digestion.—In giving due insight to the direct excitants in causing pharyngeal disease (Thorn R. French, M.D., Brooklyn, *N. Y. Med. Journal*, Sept. 12, 1896), the writer nevertheless believes that the great majority of such sufferers are the subjects of some derangement of the gastrointestinal tract. He attributes this to the American habit of hasty and irregular eating. In a considerable number of individuals examined by him, all but a very few had evidence of some pharyngeal trouble, associated with some disturbed digestion of the stomach and intestines. He lays stress upon the importance of giving this portion of the economy deserving recognition in patients presenting themselves for local treatment.—*The Laryngoscope*.

Disinfection of Sputa.—Dr. E. F. Woods, of Janesville, Wis., read a paper before the Wisconsin Medical Society (*Charlottes Med. Jour.*).

In the report of the Commission appointed by the Congress of Tuberculosis, read before the Academy of Medicine at Paris, July, 1889, we find the following:

"Of all the agents of transmission of tuberculosis, the sputa is the most formidable. There is danger to the public in dis-

charging the sputa upon the earth, carpets, hangings, curtains, napkins, handkerchiefs, clothes and coverings. Not dangerous while moist, it becomes when dried the chief means of the spread of the disease.

"How can we prevent this? One of the eastern States has tried to solve the question by legislative means, prohibiting all spitting upon the floor of public conveyances and places of resort.

"This is a move in the right direction, but one difficult to carry out. Besides it only touches part of the question. Spitting upon the earth, etc., remains.

"The one thing we can do, as physicians, is to use all our influence and authority over tuberculous patients.

"Sick people are selfish and care little for the welfare of others. But we may use as a potent argument the danger of self-inoculation. An individual well on the road to recovery, unless he takes care of the sputa, greatly diminishes his chances of recovery.

"We must persuade him, when at home, to use a cuspidor in which it is well to keep a solution of bichloride; this should be emptied daily into the fire, and then well washed out with boiling water.

"In these days of steam heat, gas stoves, etc., this often becomes difficult, and if obliged to empty into sewers be sure a solution of bichloride is always used.

"Never empty upon dust-heaps, into the garden or latrines, where it may become a source of infection to animals as well as man.

"When away from home, he should carry a small spit-cup containing a slip of absorbent cotton or gauze wet with bichloride solution, to be emptied as often as possible.

"Warn him, and also his relatives and friends, especially of the danger of spitting into handkerchiefs.

"Sometimes, when the patient has reached the latter stage of the disease and is confined to bed, the exertion of moving to spit into cuspidors, etc., causes pain or severe attacks of coughing. In such cases I have found it very convenient to keep a pad of toilet paper at hand and allow the patient to spit into pieces of this, dropping them afterwards into the cuspidor containing the bichloride solution.

"Legislation cannot accomplish what we wish; the influence

or authority of the physician often is of no avail, and we may eventually be obliged to quarantine—reporting cases of tuberculosis as we do of diphtheria.

“This would be unnecessary if we could only arouse the general public to a sense of its danger and have its assistance and influence to aid the physician.”—*The Laryngoscope*.

Boxing the Ears.—It is well to direct the attention of the profession from time to time to the evil consequences of this practice.

Dr. O. F. Baerens, in *Tri-State Medical Journal*, August, 1896, presents a series of cases where boxing of the ears, either in sport, as in foot-ball, wrestling, boxing, or as a form of chastisement, has resulted in a variety of affections of the ears.

The clinical history of almost all cases who have received blows on the ears differs generally only in the intensity of the symptoms. One symptom which perhaps creates more alarm than the others is autophonia, a condition in which the patient feels as though his cranial cavity contained air instead of brains.

Teachers and parents should be made to understand the frequent bad effects of this method of punishment, and the attention of physicians should be directed to this class of injuries, and their influence enlisted to help abolish this practice.

F. M. R.

International Congress of Hydrology, Climatology, and Geology.—At the session of this Congress, held during the last week of September, at Clermont-Ferrand, France, the following officers were elected:

Hydrology.—President, Dr. Cazan (Eaux Bonnes); foreign honorary president, Dr. Jules Felix (Belgium); vice-presidents, Dr. Ferres Luchon (France), and Dr. Pinella (Spain).

Climatology.—President, M. Hurion, director of the Puy de Dôme observatory; foreign president, M. Lancaster (Belgium); vice-presidents (France), MM. Plumandon and Piche; vice-presidents (foreign), MM. Angel Anguano (Mexico) and Faralli (Italy).

Geology.—President, Dr. Labat; honorary president (foreign), Dr. M. E. Tietze (Austria-Hungary).

President of the Congress (national), Dr. de Ranse; honorary president (foreign), Dr. Berthenson (Russia); vice-presidents, (national) M. Linder (inspector-general of mines), M. Angot, and Dr. Garrigan; vice-presidents (foreign), Professor Ludwig (Austria-Hungary), Professor Kuborn (Belgium), and Laurence Rotch, director of the observatory of Blue Hill (United States.)

Book Reviews.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M.A., M.D., LL.D. 8vo.; pp. 866. Ninth edition, revised and enlarged. [New York: D. Appleton & Co. 1896.]

It is now twenty years since the first edition of Bartholow's *Materia Medica* made its appearance, and it has evidenced not only its usefulness but its popularity as well in arriving at its ninth edition, a copy of which is before us. We could add but very little to the general verdict of its excellence, and yet we cannot refrain from saying a few words in regard to the present issue. A careful perusal of its pages and comparison with former issues will immediately show the careful revision through which each chapter has gone. Not only this, but numerous additions have been made, amounting in all to nearly fifty pages. These additions have been necessitated by the recent introduction of the large number of synthetic compounds, whose name bids fair to be legion in a very few years. The author has not attempted to take each one of these into consideration, and as he remarks very pertinently. In the absence of an authoritative tribunal to decide on the remedies for recognition and use, he has employed his own judgment in selecting them for treatment in this work.

The general scheme of the work is that which he has followed in former editions, being one based rather upon therapeutics than upon *materia medica*. Thus, Part I. is devoted to the modes in which medicines are introduced into the organism. In Part II. are taken up the actions and uses of remedial agents, this including systemic and topical remedies. To give an idea of the work of revision which has been done in this edition, it is only necessary to mention that animal extracts, toxins and anti-toxins are treated of as well as the action of the ptomaines and leucomaines.

In looking over the work critically, we have noticed a number of omissions, perhaps unimportant in character, and yet deserving of at least a mention. Iosophan, which has proven itself quite an effective parasiticide in the vegetable skin diseases, is not even mentioned. It is certainly deserving of a mention, from the very fact that it is non-irritating and its efficiency has been amply demonstrated to the reviewer upon numerous occasions. Sulphide of barium, a most efficient depilatory, is not mentioned. The author follows the lead of nearly all other writers on *materia medica* in not mentioning this salt, which is largely used for the purpose indicated. We find that chloride of calcium is spoken of chiefly as regards its possible anti-strumous properties. Its most important property—that of being an antiseptic when used internally—is not even hinted at. Under aurum we notice

that the chloride of gold and sodium is considered at quite some little length, and yet a better preparation, the bromide of gold and arsenic, is not even mentioned. We could go on noting a list of such omissions, and it all merely goes to show that no man single and unaided can hope to cover the field in a complete manner. These omissions, however, far from militate against the value and usefulness of the work. It is, without exception, one of the best, if not the best, work on the subject recently issued, and no intelligent practitioner or earnest student will go without a copy of it.

To those who have read and possess former editions of this work it is unnecessary to recommend an early purchase of this the last issue. They have fully tested its worth to their satisfaction, and they will all, no doubt, avail themselves of this opportunity to possess the latest product of the pen of Bartholow. We do not hesitate to say that no one who carefully reads this volume can fail to arrive at a thorough understanding of a subject which is of the greatest importance to the physician. The publishers have made a handsome volume of the work, printed upon fine paper with good type, and easily legible to anyone.

A Treatise on Obstetrics, For Students and Practitioners. By EDWARD P. DAVIS, A.M., M.D. 8vo.; pp. 553. With 217 Engravings and 30 Full-page Plates in Colors and Monochrome. [Philadelphia and New York: Lea Brothers and Co. 1896. Price, Cloth, \$5.00; Leather, \$6.00.

This is beyond a doubt the best and most comprehensive treatise of its size on the subject of obstetrics, which has been issued in late years. The writer has long been well known as an accomplished teacher of and writer on obstetrics and the present work is such an one as we would expect to emanate from his pen. He has considered the subject of obstetrics from a strictly modern point of view, and he has succeeded, to an eminent degree, in producing a work which will long be looked upon as a classic in its particular domain.

Dr. Davis has opened up a new field in his work. He not only takes into consideration the subjects ordinarily taken up in works of this character, but he has made it much more comprehensive in scope than the ordinary treatises. He dwells at some considerable length upon cognate subjects and thus increases the value of the book. Thus he takes up the repair of lacerations and injuries, going quite extensively into the subject of lacerations of the perineum. A subject not ordinarily touched upon in works on obstetrics, the jurisprudence of midwifery receives extended notice in the work before us. In order to give a more definite idea of the scope of the work, we may mention the following as the general subjects treated of in the various parts: Section I. is devoted to pregnancy and labor, embracing some

238 pages. In this part is given a good presentation of the diagnosis of pregnancy, and the development of the embryo as well as normal and abnormal labor and its management, including clear descriptions of the various presentations and the modes of making a diagnosis in each one. In Section II. we are given a most excellent series of chapters on the pathology of labor. In this section some of the most important subjects connected with obstetrics are given, such as placenta previa, eclampsia, abnormal and contracted pelves, rare varieties of deformed pelvis, complications by tumors, septic infection, and other equally interesting and important conditions.

In Section III. obstetrical operations are considered. In this the important subject of the forceps is taken up as well as episiotomy, version, and extraction, syphiotomy, Cesarian section, celio-hysterectomy, embryotomy and obstetric curettement. Whilst this section only occupies sixty-two pages, the subjects are fully considered and are handled in a masterly manner. Section IV. is devoted to abortion, extrauterine pregnancy, and the puerperal state. In this section insanity and nervous disorders accompanying the puerperal state are taken up, in addition to the other subjects. Lactation is very summarily disposed of, albeit in a very satisfactory manner. Infancy in health and disease forms the subject of Section V. Besides injury at birth, asphyxia and the diseases of early infancy we are presented with a very practical chapter on incubation and artificial feeding, and a more than ordinarily interesting one on fetal abnormalities in size and form and monstrosities. The diseases of infancy is the subject of Section VI.; and Section VII., which concludes the work, is given up to the jurisprudence of obstetrics.

From the above cursory recital of a portion of the contents of the treatise before us an estimate may be formed of its scope as well as of its thoroughness. A feature of the work which alone should recommend it is the large series of fine engravings which is given. A large number of photographic representations of obstetric scenes, carefully selected, in view of their usefulness and as well as their graphic qualities, are given. The plates and diagrams found throughout the book are of the best, and unexcelled in execution. The chapter on the Pathology of Pregnancy is exceptionally rich in reproductions of photomicrographs. Taken all in all, the work before us is, as we stated at the beginning of this review, the best and most comprehensive treatise of its size which has been recently issued.

The mechanical execution of the book is in the Lea's usual style—unexcelled; and we predict a large and rapid sale of this latest of the issues of their press.

A Text Book for Training Schools for Nurses; Including Physiology and Hygiene and the Principles and Practice of Nursing. By P. M. WISE, M.D., With an Introduction by Dr. EDWARD COWLES. In Two Volumes. Vol. I. 12mo.; pp. 247. Vol. II. 12mo.; pp. 327. [New York and London: G. P. Putnam's Sons. 1896.

This is beyond a doubt the best text-book for nurses which has been issued for the use and instruction of nurses. The intention has been to employ the work for recitations, each volume covering one year of the course a nurse should follow. This, supplemented with the practical instruction and technique necessarily acquired in care of patients, should certainly make a nurse not only competent, but efficient in the pursuit of her calling. A trained nurse to-day is expected to do more than give a patient a dose of medicine at stated intervals. She is supposed to be an intelligent assistant to the physician and surgeon, and the latter insists upon this qualification, and moreover desires one who can intelligently understand his directions and carry them out in the proper manner. In fact, a nurse is supposed to be an intelligent assistant, whose first duty it is to be faithful and obedient, and whose second qualification is to be observant, and offer no suggestions unless requested to do so.

Vol. I. deals with anatomy and physiology at length, and then are considered in shorter stages, ventilation, micro-organisms, disinfectants and disinfection, the sick-room and its preparation, beds and bedmaking, the observation of symptoms and clinical records. Measures, weights and symbols, and a table of automatic reflexes complete the volume. A glossary of technical terms and an index fitly close the pages. Throughout the volume we find only the best text, such as is fitted to train a nurse efficiently, and written in a very clear and comprehensible style.

In Vol. II. we are given more of the real technique of nursing. Here we find directions for applying as well as for preparing the various local applications and enemata and suppositories. Bandaging and splints are discussed at some length. The immediate treatment of wounds, asphyxia, convulsions, apoplexy and similar conditions are given—anesthesia and anesthetics, massage, baths and bathing, forcible feeding, and in fact all the various duties coming within the duties of a trained nurse are given. Nursing in special diseases, in insanity, in children's diseases, in gynecological cases, etc., is also considered.

The scope of this work may be judged from the incomplete summary given, and when we add that the illustrations are numerous, it can readily be seen that it is not only complete, but so arranged as to be easily understood and valuable as a guide to intelligent nursing and a good indication of the responsible position occupied by a trained nurse. In Vol. II. we also have

a glossary of technical terms, with which we have but one fault to find. The definitions are frequently incorrect, incomplete or misleading. This little fault will, no doubt, be corrected in future editions. The mechanical execution is excellent, and the book should meet with a ready sale.

Royal Infirmary Cliniques. By ALEXANDER JAMES, M.D., F.R.C.P.S. 8vo.; pp. 167. [Edinburgh: Oliver & Boyd. Tweeddale Court. 1896. Price 5/.

The author of these lectures has long held the opinion, and a very just one, the note-taking during clinical lectures has certain disadvantages connected with it, and so he has published his lectures in medical journals and afterwards collected them in the form which we have before us. Dr. James lectures at the Edinburgh Royal Infirmary, and he possesses the happy faculty of making each one of his clinical lectures not only most interesting, but instructive as well. We look upon his idea as a most happy one, and wish that more followed his method. The nearest approach to this method with which we are acquainted is the *International Clinics*, published by the Lippincotts, of Philadelphia, and they have proven a signal success. We have also noticed that the Lettsomian lectures, whenever published in book form, have met with large and ready sales.

The lectures in the volume before us are of the highest interest, and relate to cases which are more or less obscure in origin or diseases difficult to recognize or whose pathology has not yet been made clear. Beginning with a lecture on two cases of empyema, the author next gives one on pulsating empyema, and in these two lectures he considers the subject most thoroughly. After considering a very interesting case of fibroid phthisis with great displacement of the heart, various renal troubles are considered in the succeeding four lectures. Thus, a case of renal and cardiac disease, with special reference to the diurnal and nocturnal excretion of urine; a case of primary contracting kidney; one of hydronephrosis, treated by aspiration; and diabetes mellitus. All are good examples of the conditions spoken of, and the lecturer presents them in unequalled style. Two cases of liver cirrhosis in children; a case of dysentery, treated by deemetricised ipecacuanha; and aortic aneurism, with special reference to sensitive areas of the skin; form most valuable lectures, full of hints and practical points. The next five lectures deal with neurological subjects. A very interesting one is that dealing with a case of epilepsy, presenting some peculiar features. A case of spinal injury, one of Fredreich's ataxy, one of combined paralysis of the nerves of the arm, due to injury, and one of pores lesion. The final and concluding lecture, as well as one of the most interesting in the book, is devoted to a case

of Addison's disease. In this the author threshes well the entire subject.

It is refreshing indeed to have an opportunity to read such lectures, in view of the fact that we are deluged with so much surgical literature. We are sure that any one who will obtain a copy of this book and read it attentively will, in the future, make it a point to obtain succeeding volumes, so fascinating to a medical man are its contents.

Recherches Cliniques et Therapeutiques sur l'Epilepsie, l'Hysterie, et l'Idiotie. *Compte-Rendu du Service les Enfants Idiots, Epileptiques et Arriérés de Bicêtre pendant l'Année 1895.* Par BOURNEVILLE. Vol. XVI. 8vo; pp. lxxi.-254, eve 31 figures et 8 planches hors texte. [Paris: *Progrès Médical*; 14 rue des Carmes; Félix Alcan, 108 Boulevard St. Germain. 1896. Prix, 6 francs.

Clinical and Therapeutic Researches on Epilepsy, Hysteria and Idiocy. By Bourneville. 8vo.; pp., lxxi-254. With 31 figures and 8 plates.

The volume before us is the annual report of the service for idiotic, epileptic and feeble-minded children at Bicêtre during the year 1895. It is the work of Bourneville, the editor-in-chief of the *Progrès Médical*, and that in itself is a sufficient guarantee of its excellence. In addition, a number of collaborators have assisted, and each one is or has been an interne at the institution, which is also an assurance of exact and minute as well as well-kept notes of cases. The first part, which is largely introductory, is devoted to a description of the history of the service at the hospital during the year 1895. The methods of instruction are dwelt upon, and these alone are worth the most serious study of those interested in the education of the feeble-minded. It is, indeed, a revelation to read the methods employed, and there can be no doubt in regard to the results attained.

Following this come the clinical records of the more interesting cases observed. The abundance of clinical material furnished by this hospital can be easily surmised when the total number of cases seen is taken into consideration in comparison with that recorded. There is not one which is not of the highest interest, and we only regret that we have not the space at our disposal to analyze a number of them. One fact we desire to insist upon, which is that no alienist or neurologist can afford to do without this volume. Not only will he find much that is interesting, but he will also cull many things of the greatest value to him in his daily practice. Superintendents of insane asylums will also find much food for reflection in the pages of this report, and perhaps a model which it would prove valuable to follow.

The Tonic Treatment of Syphilis. By E. L. KEYES, A.M., M.D. 8vo.; pp. 78. Revised edition. [New York: D. Appleton & Co. 1896.

We have read this little monograph of Dr. Keyes, and must confess that he has not converted us to his mode of thinking. We may have been unfortunate in our experience, but that is our sole criterion in passing judgment. For we have had occasion to observe patients who had been treated by the tonic method—in other words, the continuous administration of small doses of iodide of mercury—and they suffered from syphilitic insanity and other nervous troubles, enlargement of the bones, and a host of other phenomena, which intermittent treatment with large doses of mercurials relieved. We have always pursued the latter plan, and have had no occasion to regret it up to the present.

We must confess that Dr. Keyes presents his subject in a most seductive manner, and there is no reason to doubt that in a large number of cases his method will be found a most efficient one, provided confidence may be placed in patients to carry out directions as laid down. It is, after all, a most difficult matter to be positive in regard to any treatment unless cases be observed for a number of years, and their condition examined critically from time to time. As in all other conditions, the physician must be careful in his observations, and govern his treatment in great part by the conditions which he finds present. Whilst we would not wish to cast any reflections on Dr. Keyes' tonic treatment of syphilis, we would not advise those unacquainted with the disease to rely implicitly upon the method. As a matter of fact, the author of the monograph before us calls attention to the fact that cases do occur in which other methods are imperative, and it is well to recognize these in time, in order to obtain the best results.

O-D.

Literary Notes.

Books Received.—The following books have been received during the past month, and are reviewed in the present number of the JOURNAL:

The Tonic Treatment of Syphilis. By E. L. Keyes, A.M., M.D. 8vo. pp. 78. Revised edition. [New York: D. Appleton and Co. 1896.

Recherches Cliniques et Thérapeutiques sur l'Epilepsie, l'Hystérie et l'Idiotie. Compte-rendu du service des enfants idiots, épileptiques et arriérés de Bicêtre pendant l'année 1895, par Bourneville. Vol. XVI. 8vo. pp. lxxi-254, avec 31 figures.

et 8 planches hors texte. [Paris: *Progrès Médical*, 14 rue des Carmes; Félix Stean, 108 Boulevard St. Germain. Prix, 6 francs.

Royal Infirmary Cliniques. By Alexander James, M.D., F.R.C.P.E. 8vo. pp. 167. [Edinburgh: Oliver and Boyd, Tweeddale Court. 1896. Price 5/.

Transactions of the Seventh Annual Meeting of the Medical Society of the State of Washington, held at Tacoma, Washington, May 19-20, 1896.

A Treatise on Obstetrics. For Students and Practitioners. By Edward P. Davis, A.M., M.D. 8vo. pp. 553. With 217 Engravings and 30 full-page Plates in Colors and Monochrome. [Philadelphia and New York: Lea Brothers & Co. 1896. Price, cloth, \$5.00; leather, \$6.00.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., L.L.D. 8vo. pp. 866. Ninth Edition; revised and enlarged. [New York: D. Appleton and Co. 1896.

A Text-Book for Training Schools for Nurses, including Physiology and Hygiene and the Principles and Practice of Nursing. By P. M. Wise, M.D. With an Introduction by Dr. Edward Cowles. In Two Volumes. Vol. I. 12mo. pp. 247. Vol. II. 12mo. pp. 327. [New York and London: G. P. Putnam's Sons. 1896.

The Transactions of the Medical Society at Washington, at its seventh annual meeting at Tacoma, are very interesting and are an index of the progressive spirit of the physicians of the Northwest. The papers contributed are of a superior order of merit and show that the medical men of that far-off State are not only progressive but up to the times. Among the actions to be commended is that of the society to make efforts to have a State Board of Health to formulate laws for the government of the practice of medicine in that State. It is a sign of the times, and we are eagerly looking forward to the time when every State shall have stringent laws in this regard.

Dr. T. Colcott Fox.—The New York Dermatological Society held a special meeting, October 19, at the New York Academy of Medicine, in honor of Dr. T. Colcott Fox, the distinguished dermatologist of London. The informal social functions were not the least enjoyable feature.

Miscellaneous Notes.

Extract Pinus Canadensis.—F. A. Rew, M. D., Imboden, Ark., says: "My experience with S. H. Kennedy's Extract of Pinus Canadensis was so decidedly satisfactory and gratifying that I prescribed it with a positive assurance that benefit will follow its use. On the principle that 'all astringents are tonics,' I use the Pinus Canadensis, in small doses, in pneumonia, bronchitis, typhoid fever; indeed, where the mucous membranes need a tonic, and recognizing the similarity between mucous membranes and the external skin, I use it in erysipelas, nervous forms of eczema, and wherever the skin needs a tonic. It is all I need in many cases of ophthalmia and gonorrhea. Its special therapeutics would fill many pages, and I am satisfied that we will yet find new uses for it."

Pain Relieved with Utmost Safety.—Albert M. Williams, A. M., M. D., of Bradford, Pa., says: "I have used Antikamnia in my practice since the first introduction and used it extensively. At first I was a little cautious and a little apprehensive, and rarely ventured on larger doses than five grains; but for several years I have given it in ten and fifteen-grain doses to adults and when needed, repeating every hour or two hours. I have rarely been dissatisfied in controlling pain, if the pain was of a character to be controlled by medicine. In severe neuralgias or any severe form of pain, my method is to prescribe ten grains to be given every hour till the pain ceases. I seldom use morphia or opium in any form. I have seen so many unfortunate victims of the opium habit that I shun its use, and Antikamnia is my sheet anchor. The effects of opium and its alkaloids too, are most disagreeable to many people. I always suffered untold misery when I had taken even a small dose of morphia; itching and nausea especially continuing for about two days. There is none of this following the use of Antikamnia, and I have never heard of a victim of the Antikamnia habit. I have yet to see the first case where any alarming symptoms have followed its administration. I have for a long time been in the habit of prescribing it in a little larger doses than are recommended and any bad results from its use must be due to some idiosyncrasy on the part of the patient."

Peacock's Chionia.—About eight weeks since I was called to see a patient of Dr. L's. We found her with excruciating pains in the hepatic region, constant vomiting with distress of stomach, in fact could keep nothing down for a couple of days. Enlarged liver easily felt below the costal margin, very sensitive, so much so that we strongly suspected malignant disease. The symptoms were discouraging decidedly as the doctor had given her nearly every medicine used in hepatic diseases without relief. I suggested "Peacock's Chionia." It was given, and she began to improve, and at this date is as well as usual. It certainly was an efficient remedy in her case, and the result deserves recording.

F. W. BATHRICK, M.D.

Battle Creek, Mich.

Seng.—I am pleased to say that the most excellent preparation "Seng" has given me complete satisfaction. I can sincerely recommend it in all cases where such a delightful as well as efficacious remedy is indicated. It will afford me pleasure to speak of its merits on all suitable occasions.

GEORGE W. BABCOCK, M.D.
Chelsea, Mass.

Pilocarpine as it occurs commercially often contains Jaborin and other allied alkaloids and impurities; Jaborin acts like Atropin, hindering secretion, and its presence therefore disturbs the therapeutic effect of Pilocarpine. The most reliable test for purity is the melting point. The U. S. Pharmacopœia gives 197°C. (386.6°F.) as melting point. C. F. Boehringer & Soehne showed that Boehringer's Pilocarpine Muriate melts at 15°C. above any of the other brands in the market. The best of the competing products were re-crystallized, and the resulting crystals then closely approximated the "Boehringer" standard, proving that impurities originally present had been eliminated by the careful re-crystallization.

As Pilocarpine hydrochlorate is now more popular than ever before in medical practice, and in view of the delicate uses to which it is put—internal or local, with possibility of toxic effects—physicians and pharmacists should exercise special care to prescribe and dispense only an absolutely pure product. And the melting point test seems to be the easiest applied and most reliable; the product should not melt below 197°C.

Neuralgia, Hysteria, Asthma, Spermatorrhœa.—*Neuralgia.*—The varieties of Neuralgia are almost as numerous as the nerves of the body. Wherever there is a nerve there may be pain. In almost every form Neurosine will be found to give prompt relief, and if preserved with the interim of the attack, the splendid effects of the bromide of zinc and Cannabis Indica as permanent nerve tonics, and the other bromides as alteratives, may be confidently expected.

Hysteria.—The manifestations of hysteria are so infinite in number that Tanner has well said: "Hysteria simulates almost every known disease." It so often exists without any pathological lesion and persists after cure of the lesion that the practitioner has no resource but the well-known antispasmodics, anodynes and nerve tonics, which should only be taken at the direction and which alone in many cases intervene to save the sufferer from too common resort to opiates. Here Neurosine not only gives prompt relief but offers the best means of cure.

Asthma.—The Bromides, Belladonna and Cannabis Indica have been and still are, the sheet anchors in this common and distressing malady. Trousseau, and others after him, was wont to push Belladonna to the limit of toleration in Asthma, and thus he secured results equaled by no one of his time. A combination of these always efficient agents in Neurosine, has in this disease given more satisfactory results than any other known remedy.

Spermatorrhœa.—Self-Abuse, Sexual Neurasthenia, etc. The results in this class of cases, annoying alike to the physician and patient, are well expressed by a physician eminent in his work who says: "Your Neurosine has given me at least satisfactory results which will warrant me in a further use of it."

THE ST. LOUIS Medical and Surgical Journal.

Whole No. 672.

VOLUME LXXI.—DECEMBER, 1896.—No. 6.

Original Communications.

HEMIANOPSIA. By J. G. EHRHARDT, M.D., St. Louis.

Hemianopsia is of interest to the general medical practitioner as well as to the ophthalmologist. It is characterized by a defect of one-half of the visual field. The importance of perimetric measurements in the study of various forms of ocular diseases is well known; especially so in hemianopsia, where we can map out a visual field, one-half of which is blind in each eye, by the aid of the perimeter. The affection may be homonymous, affecting in both eyes the right to left half—that is the temporal half of one, and the nasal half of the other; or it may be crossed, affecting either the temporal or the nasal half of each eye, the latter variety being very rarely found.

The causes of hemianopsia are mostly cerebral hemorrhages; but sometimes cerebral tumors or fractures, involving some part of the optic chiasm, the optic tract, or the occipital lobe.

We speak of hemianopsia as being either *horizontal* or *vertical*, the former being characterized by the dividing line between the darkened and preserved field running horizontally; while in the vertical form the dividing line is vertical.

Horizontal hemianopsia, also called altitudinal, may be superior or inferior, that is, both upper or both lower fields are wanting. This condition may be produced by a lesion pressing upon the upper or lower part of the chiasma, or upon the upper or lower part of both optic nerves. A lesion on both sides, in front of the chiasma, may be followed by blindness of the upper half of the visual field in one eye, and of the lower half in the other eye.

Vertical hemianopsia may be bitemporal, in which case both temporal fields are dark; or it may be binasal, in which case both nasal fields are dark. The latter form is extremely rare, being only found where there is a lesion on each side of the chiasma, or on the outer side of each optic nerve, thus affecting the direct fibres. The third form of vertical hemianopsia is called *homonymous*, and is characterized by darkness of the same side of the half of each eye, that is both right or both left fields are dark. When the right half of each visual field is wanting, it indicates that the left half of each retina, the nasal half of the right and the temporal half of the left, do not act. If the left half of the two fields are wanting, it indicates a loss of function of the right half of each retina, the temporal side of the right and the nasal side of the left. We designate these two forms as right lateral hemianopsia and left lateral hemianopsia.

Homonymous hemianopsia is the most frequent variety, and is produced by a hemorrhage or tumor, or other lesion, so situated as to destroy the continuity posterior to the chiasma. This lesion may be in one of the optic tracts, or further back in the optic centre, or in the occipital lobe of one side. What part, posterior to the chiasma, is the seat of the lesion cannot be clinically diagnosticated. If there is a tumor or bloodclot pressing upon the right optic tract, or further back on the occipital lobe, it will produce darkness of both left halves of the visual fields, that is the dark field is always on the opposite side of the lesion. In this kind of homonymous defects of the visual field, the field usually terminates exactly in the median line, the dividing line exactly ends the fixation point, as can be demonstrated and mapped out by the perimeter.

The ophthalmoscope seldom shows any change of the fundus oculi, except occasionally a pallor of one side of the optic disc, which, however, cannot be regarded as a sign of any value from a diagnostic standpoint. The prognosis will, of course, depend upon the cause of the disturbance. It is more favorable in the

homonymous than in the crossed variety. In this form complete blindness is not likely to ensue, unless the existing lesion should invade the opposite side of the brain. In the crossed variety there is danger that the lesion situated in the center may encroach upon both optic tracts in their entirety, and consequently produce complete blindness. In some cases, however, of either form, there may be no progression; and, in case of hemorrhage, the blood clot may be entirely resorbed, so that it may be possible that complete restoration of sight ensues. Complete recovery occasionally occurs where the hemianopsia has been produced by syphilitic lesions. In most cases, however, the changes produced in the nerve fibres are of such a character that reparation is impossible.

The treatment must of course be directed to the cause.

The following case is a characteristic one of right lateral (homonymous) hemianopsia:

Mr. C. A. L., a railroad brakeman, while at work on August 29, 1894, was suddenly attacked by vertigo, and fell unconscious to the ground. The attending physician pronounced it a case of insolation, as it occurred on a very warm day. Patient remained unconscious for four weeks and in bed six weeks, during which time there existed hemiplegia of right side.

The patient was sent to me, Dec. 22, with the above history, for an examination of his eyes, he imagining that he could not see with his right eye. On testing his vision I found it to be: right eye, $\frac{8}{8}$; left eye, $\frac{1}{12}$; not improved by glasses. No error of refraction present is shown by retinoscopic examination. On measuring the field of vision, I found the right half of each field dark, the dividing line being exactly through the fixation point. The fundus of each eye was normal. My diagnosis was: right lateral hemianopsia, probably produced by a blood clot pressing upon some part back of the chiasma on the left side of the brain, probably in the cerebral cortex in the occipital lobe. I prescribed iodide of potassium, and when I next saw him, two weeks later, his acuity of vision in right eye was: $\frac{8}{8}$, and in his left eye, $\frac{8}{8}$. The defect in the field of vision was unaltered; perhaps some of the blood clot had been resorbed.

I quote the above case to show the importance of mapping out the visual field by means of the perimeter as an aid to the diagnosis of cerebral hemorrhages and neoplasms, in all cases where the patient's condition makes it possible to do so.

HYDROZONE IN GASTRIC AND INTESTINAL DISORDERS. By JOHN AULDE, M.D., Philadelphia, Pa.

A period of nearly twelve years has elapsed since I first began the clinical use of hydrogen dioxide, generally referred to at that time as the peroxide of hydrogen. In 1887 I published a paper giving a detailed account of several cases in which it had been employed by inhalation, but even then I was thirty years behind the report of Dr. (now Sir) Benjamin Ward Richardson, of London, who had made a thorough investigation of its antiseptic, detergent and healing properties. Notwithstanding the fact that this preparation had been known to the medical profession for that length of time, it had achieved little or no reputation. This, however, may be explained by the fact that the discovery preceded the dawn of bacteriology. Indeed, I was one of the early contributors to medical literature relating to the clinical value of this product, and since that time I have published a number of articles, embracing practically every application, both medical and surgical, to which hydrogen dioxide is adapted.

In the present communication it is my object to direct the attention of the profession to its special value in the treatment of gastric and intestinal disorders. In gastritis, for example, there is no antiseptic which can be given with so much benefit as this remedy, because its effect is immediate, and even in considerable doses it is absolutely harmless. The same is true in regard to its employment in typhoid fever, cholera infantum and Asiatic cholera. In the latter disease its efficacy has been thoroughly demonstrated by a number of well-known physicians, and its applicability in cholera infantum is well known to those physicians who have given careful attention to the most modern methods in the treatment of this class of cases.

The following brief notes will be sufficient to indicate the availability of this remedy in the treatment of the disorders already mentioned; although in view of the fact that hydrozone is a more concentrated product, and withal a permanent solution, this latter remedy should have the preference. It contains at least double the volume of nascent oxygen which has heretofore been the standard for the medicinal peroxide of hydrogen.

In gastritis, either acute, subacute or chronic, we have to deal with an unhealthy condition of the lining membrane of the stomach. The inflammation is attended with an increased out-

put of mucus, which seriously interferes with the normal functions of the peptic glands. By the introduction of a small quantity of hydrozone, in the strength of one part to thirty-two parts of boiled or sterilized water, this objectionable mucus is at once destroyed by the action of the oxygen which is released, and the contents of the stomach remaining are promptly discharged into the small intestine. A patient suffering from gastritis should take at least half an hour before meals from two to four ounces of diluted hydrozone (one to thirty-two), and lie on the right side so as to facilitate the action of the stomach in discharging its contents.* The antiseptic properties of hydrozone thus used are sufficient to destroy the micro-organisms and leave the stomach in a healthy condition for the absorption of nutritive pabulum. All forms of fermentation are promptly subdued by the active oxidation resulting from the liberation of nascent oxygen. The patient is then in a condition to take suitable food, which should be nutritious and easily digested, liquids being preferred until the active symptoms have subsided. Later small portions of solid food can be ingested, but all food-stuffs of a starchy character must be thoroughly masticated, in order to secure the action of the salivary secretion upon the starch granules, breaking them up, and lessening the tendency to fermentation in the stomach. After taking a meal, a patient with gastritis should follow it with medicinal doses of glycozone, which contain, in addition to the nascent oxygen contained in hydrozone, a percentage of glycerin, which favors osmosis and assists it re-establishing the functional activity of both the peptic and mucous glands of the organ.

In the treatment of cholera infantum, typhoid fever and Asiatic cholera, the same general plan should be adopted in dealing with the stomach, always bearing in mind the necessity for having the patient remain in the recumbent position and on the right side for at least half an hour after the ingestion of the solution. In addition, however, to the preliminary treatment of the stomach, the same solution (one to thirty-two) is used as an injection into the lower bowel, care being exercised to insure its introduc-

* In chronic cases with a large output of gastric-mucus, and particularly in gastric ulcer, concentrated solutions are not well borne at first, owing to the formation of oxygen gas, but this difficulty disappears with the continued use of the remedy, and no treatment of gastric ulcer can be regarded as complete without the local employment of hydrozone.

tion as high up as possible. This can be managed by having the patient lie on the left side, with the hips well elevated, and the employment of a long, flexible rectal tube. In this manner we secure and maintain an antiseptic condition in both the stomach and large intestine, the importance of which will be understood when we consider the large number of micro-organisms which grow under these favorable conditions with such remarkable rapidity.

When deemed advisable, the solution introduced into the lower bowel may be combined with large quantities of either hot or cold water, which enables us to obtain the benefits of irrigation in addition to the antiseptic effects. These irrigations may be employed as frequently as deemed advisable by the medical attendant, but they will usually prove satisfactory if administered at intervals of four hours.

Although brief, it is believed that this communication will prove serviceable to a large number of practitioners who have hitherto found serious difficulties in counteracting the mephitic influences of bacteria in this class of disorders; and the clinical virtues of the remedy being now so fully recognized, no one will hesitate to adopt the methods suggested, which may be conveniently carried out in addition to the usual routine treatment.—*New York Medical Journal*.

The American Association of Obstetricians and Gynecologists, at its ninth annual meeting, held at Richmond, Va., elected the following named officers for the ensuing year, namely: President, James F. W. Ross, M.D., Toronto; vice-presidents, George Ben. Johnston, M.D., Richmond, and John C. Sexton, M.D., Rushville, Ind.; secretary, William Warren Potter, M.D., Buffalo; treasurer, Xavier O. Werder, M.D., Pittsburg. Executive council: Charles A. L. Reed, M.D., Cincinnati; Lewis S. McMurtry, M.D., Louisville; A. Vander Veer, M.D., Albany; J. Henry Carstens, M.D., Detroit; and William E. B. Davis, M.D., Birmingham. The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19 and 20, 1897.

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Editorial.

THE DOCTOR AS A LITERATEUR.

It has always been supposed by the public at large, whether right or wrong, that the physician is a mine of information and of intellectuality. He is being continually assailed by all sorts and varieties of questions on every imaginable topic, and unless he be gifted with a wide range of information his position is often a most unpleasant one. On the other hand, the physician, as a general rule, acquires a taste for literature. In order to pass what little leisure time he has in a way pleasant to himself, he delves into the riches of the best literature, and thus comes, little by little, a certain amount of the love for the best authors which characterizes so many members of our profession. It goes without saying that the college-bred men are always readers of good books, and not a few among them have gone beyond the mere pleasure of merely reading, and have become active contributors to the world of letters, and are to-day numbered among the most distinguished of the citizens of that large world which

numbers those who have wielded a graceful and a lasting pen. We will not count those who have written technical matter, but those who have courted the Muse and dipped in the realms of romance and belles-lettres.

The nations who have furnished us with the largest number of doctor-authors are the French and German. Who can ever forget the immortal Rabelais, who has so successfully lampooned the medical profession? But we will not take up the Continental authors who flourished from the middle ages up to the present time. It would take tomes to thoroughly discuss the subject. We would rather take a hasty glance at a few English and American medical men who have left their impress upon literature, and such a work as time will not readily efface. Who that has ever read the works of Smollett will ever forget his humor, his accuracy as to details, his unvarying good humor, his sarcasm, and his accurate descriptions of characters and of personal idiosyncrasies? No one who has ever had the pleasure of reading Humphrey Chinker, or the other equally good productions of this prolific author, can ever forget the *verve* which he throws in each one of his novels, nor the interest which he awakens in his reader.

Who that has ever laughed, courted and fought with the rollicking Charlie O'Malley can ever forget Charles Lever? Have we not all sympathized with him in his troubles, and rejoiced at his victories and wished a hearty *au revoir* when at last we separated? And Harry Lorrequer, that slashing, roving Irish blade, and the rest of that list of jolly fellows, are they not the life of our youth, bubbling over with good spirits, always in scrapes, and always coming out in the best manner? We are in full accord with the author, and we cannot help but admire his jolly good humor; and no one ignorant of the fact would ever suppose that he had attempted to practice medicine and given up the attempt to devote himself to letters. Looking backward a little we see an insignificant individual, unable to sustain an intelligent conversation, who wrote divine verses and enthralled all his readers. Oliver Goldsmith shall ever remain high among English poets, and will for many years be looked upon as one of the literateurs who did honor to the medical profession. Among the more modern writers, and one who made a most happy hit, is Conan

Doyle. His literary success has been so great that he has abandoned the practice of medicine; and yet had it not been for this experience his "Tales About the Red Lamp" would never have sprung into existence. Who that has ever read the "White Company" can ever forget the old knight, always in search of an opportunity for slight advancement, or "Hordle John," the mighty? Who that has ever read it can forget the thrilling description of the fight on the hill? Our novelists can certainly boast of no more graphic pen than that wielded by Dr. Doyle.

The American profession has already furnished its quota of good authors. We will never forget the "Wonderful One-Hoss Shay" or "Darius Green and His Flying Machine," written by the genial "Autocrat of the Breakfast Table." The austere professor of anatomy of Harvard could leave dry bones and indulge in the sweetest poetry when'er it pleased him. He could address himself to his practice as well as to his poetical inspirations. Americans can never forget Oliver Wendell Holmes, and the medical profession will never cease to love and honor him wherever English is spoken. "Elsie Venner" is, in one respect, a distinctly medical novel. So far as literary style is concerned, it is superior in merit, and for originality of *motif* it stands unique. Besides "Lalu," Dr. Wm. Hammond has written other novels, but this one shall ever retain its place among the most pleasing American stories. One of the latest medical aspirants to literary honors has just launched a book which is destined to occupy a niche its author has carved for himself. We allude to "Over the Hookah," by Dr. G. Frank Lydston, and will not say any more of this product of his brain, as it will be reviewed at greater length in another place.

This meager outline of what a few from among the many medical men have done for literature should certainly prove an incentive to others. All have not abandoned their chosen profession to devote themselves to letters, and some are still in the harness. And it may not be amiss to state that they are far from being mediocre as physicians. All are prominent, and devote themselves to purely professional work of a literary nature, producing superior works. The young doctor who is sighing for worlds to conquer has a field open to him here which will prove fertile if but properly cultivated.

PSYCHOLOGY IN MEDICAL COLLEGES.

With the advance of medical education there are constantly being added to the curriculum various subjects which are sometimes referred to as collateral branches, as, for example, physics, botany, etc.

In those institutions which already maintain a very high entrance qualification, we find a less necessity for instruction in the so-called collateral subjects, since candidates for admission will have pursued some of the branches in their preparatory college course.

There is one very important collateral subject, however, which has been, and is at the present time, grossly neglected in nearly all colleges, a subject which in its bearing upon medicine is certainly as fundamental as chemistry, physics, botany, etc. This subject is psychology.

Many physicians daily feel the want of a more thorough understanding of mental manifestations in disease.

In every medical college the student is, in general, instructed in anatomy and physiology, preparatory to taking up the study of the symptomatology, pathology and therapeutics of disease; but unfortunately in the fundamental training the study of the physiology of the mind, *psychology*, is very superficially dealt with or entirely omitted. Nevertheless, it is assumed that the student through his course in nervous and mental diseases will acquire as perfect a knowledge of this subject as of those subjects for which he does receive an anatomical and physiological training. The error of this assumption is apparent in the difficulty with which the majority of students comprehend mental disease.

Inasmuch as little or no knowledge of psychology is usually required of students entering upon the study of medicine, it is the duty of every college to provide instruction in this subject, which is now recognized as a fundamental principle of medical science.

Not only in mental and nervous diseases is a knowledge of the physiology of the mind so important, but also in many essentially physical diseases which incidentally manifest morbid mental action.

Mental disturbance, like physical disturbance, is usually only a perversion of physiological functions, and how necessary it is that one have a knowledge of the normal physiological function

before an effort is made to acquire a knowledge of perverted functions.

It is to be hoped that in the general extension of the medical curriculum psychology as a fundamental branch of medicine will be given the prominent place which its intimate relation to medicine warrants.

G. C. CRANDALL.

GREETING.

The JOURNAL is getting along in age. With this number it completes the fifty-fourth year of its existence and yet it neither feels nor shows the marks of age, much less of decrepitude. It has in the past made an endeavor to keep pace with the progress of medicine and surgery as far as its restricted space would permit. Of writing there seems no end, and it has become a veritable task to cull, from such a large bouquet, those flowers which shall be most pleasing to those to whom they are offered. It will ever be our aim to combine the *utile cum dulce* as far as lies in our power. We cannot furnish our readers with nothing but ultra scientific articles and cullings, nor can we afford to give them naught but a heterogeneous mass of more or less doubtful prescriptions. Such items and such articles as may serve to fill the *lacuna* in their books should ever prove welcome, and in furnishing these their practical use and application will always be obvious. With the coming year all things promise to take on a brighter appearance, and the medical profession will surely obtain its share of the promised prosperity.

To our old subscribers we return thanks for their fealty and indulge in the hope that they will induce their professional friends to become subscribers. To our advertisers we return our heartfelt thanks for their liberal patronage. To all of our friends we desire to extend the greetings of the season, hoping that each one may have a Merry Christmas and a Happy and Prosperous New Year.

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As our readers may see, the subscription price of the JOURNAL is \$1.00 per year, in advance. We would advise each one who receives a copy to enter his name on our books at once, as a new volume begins with the January issue. The JOURNAL promises to be better than ever in 1897, and we urge all to avail themselves of the opportunity now.

Dermatology and Syphilology.

Fibroma Molluscum of Labium.—Holzmann (*Inaugural Dissertat.*, Marburg, 1896) describes an unusually large tumor of this kind, which grew from the right labium majus of a woman aged 37. It had existed for at least nine years, beginning as a swelling of the labium, which for a time advanced very slowly. Latterly, as is the case with most growths, it advanced rapidly, so that it reached to the knee. There was little or no pain, and it was successfully removed. It weighed over fifteen pounds.

Tertiary Syphilis in a Child of Five.—Feulard describes a case (*Annales de Dermat.*) brought to him for a sore in the nostrils, which examination disclosed to be a pronounced case of tertiary syphilis; with destruction of the nasal septum, the palate and the posterior part of the pharynx, the teeth shaped like the teeth of a saw, with other unmistakable lesions (*Jour. A. M. A.*). The father accompanying the child was a strong, healthy man, who had two healthy grown daughters, all free from any syphilitic taint. The mother had died a year after the birth of this child, and the father had before this grave reasons for doubting his paternity, although the child might have been infected while it was at nurse in the country. The case is remarkable for the rapidity with which the disease had developed unrecognized to the tertiary stage, and the fact that it had progressed without attracting attention or causing much annoyance to the child.

Hospital Contagion of Syphilis.—Fournier records the second case in his hospital experience of a patient being treated for eczema, and being discharged cured, returning soon after with syphilis contracted in the hospital (*Jour. Am. Med. Ass.*). He is inclined to ascribe the contagion to the patient having perhaps exchanged caps with some syphilitic, as such extreme precautions are taken at the St. Louis to prevent infection. Leredde suggests that syphilitics with lesions in the mouth ought not to be allowed to expectorate promiscuously any more than tuberculous patients.

Porokeratosis.—Mibelli has recently described a new affection produced by a hyperkeratosis of the orifices of the sweat glands, which he calls porokeratosis (*J. A. M. A.*). Dubreuilh

has since had occasion to observe a case which confirms Mibelli's announcement that it is entirely distinct from lichen planus in any form. The child, 12 years old, has had lupus and the lesions in question since his first year. They are on the hand and the forearm, and have gradually extended, without ever becoming inflamed or causing pain or special inconvenience. They form an irregular track two to three centimeters wide, skipping the wrist, from the last phalanx to the elbow, consisting of hard, horny verrucose elevations half a centimeter in height at the elbow. They drop off occasionally, but grow out again at once. The smallest are the size of the head of a pin, and are small, pale conical papules, the summit of which is formed by a small horny tip which projects from the top of the papule, from which it is quite distinct. These are the original lesions, which began on the hand. Scattered among them are a few cones from which a hair issues. The largest lesions are the size of a lentil or hemp seed, and present a central corrugated surface and a surrounding crater-like slope. The center is horny, whitish, opaque, thick and hard, separated from the crater enclosure by a narrow, deep, circular fissure. It is hard to enucleate this center, as it is tough and adherent, but when it is done or falls out spontaneously the depth of the crater is found to be of the same horny substance. After removal of the crusts the skin underneath is found normal and soft. The general health is good. The *Arch. Clin. de Bordeaux* for August contains Dubreuilh's report with a few more details.

Thyroid Preparations in Skin Affections. — H. Swift (*Australas. Med. Gazette*) records his experience of the thyroid treatment in certain skin affections. In three well-marked cases of psoriasis the administration of thyroid tabloids was followed by success. Cases of chronic dry eczema with thickened and infiltrated skin were much improved, but if the eruption is at all inflamed or moist the condition is aggravated by thyroid tabloids. Two cases of alopecia areata showed no improvement after some weeks' trial of the same treatment. The author treated four cases of long-standing acne in the same way; in two of these, after prolonged perseverance, the result was quite satisfactory; in one there was no apparent change; the other was made decidedly worse. In urticaria, in impetigo, and in moist eezematous conditions, the treatment failed.

In two cases of erythema multiforme it had to be discontinued. The class of cases that in Swift's hands has derived the greatest amount of benefit is that of ichthyosis and the allied conditions of xerodermia and sclerodermia. He has had twelve cases of ichthyosis and two of xerodermia under his care during the past two years, and in only one instance (xerodermia) has the treatment failed to produce a most beneficial effect on the skin, all the harsh, dry and withered scales being removed, and the skin beneath rendered soft, supple and elastic. He generally begins by giving one 5-grain tabloid twice a day to adults, and gradually increases the dose. In young children he commences with half a tabloid a day. When recovery is well advanced it is wise to lessen the dose gradually, and to give only sufficient to keep up the effect. O-D.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1897, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the college on or before May 1, 1897.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the college; other essays will be returned upon application within three months after the award.

The Alvarenga Prize for 1896 was not awarded.

Medical Progress.

THERAPEUTICS.

Ferratin.—Marfori (*Archiv. Ital. de Biol.*, Tome XXIII Fasc. I-II) publishes the results of some recent experiments upon the absorption of ferratin and its physiological action. He states that the quantity of ferratin that can be absorbed depends largely upon the condition of the mucous membrane of the gastro-intestinal tract. Sulphuretted hydrogen, which accompanies putrefactive processes in the intestine, *slowly* decomposes ferratin (it immediately precipitates ordinary iron compounds.—Ed.), and so reduces the amount capable of being absorbed. The large amount (13.7 to 41.68 per cent.) that occurs after administration of saline purgative Marfori ascribes in part to the aseptic condition of the bowel, and in part to the fact that the saline purgatives cause a desquamation of the upper layers of the intestinal epithelium, and therefore expose a thinner layer of young cells through which absorption more readily takes place.

When the gastro-intestinal canal is in its normal condition the absorption of ferratin is much less, according to Schmiedeberg; but since the latter's experiments render it impossible to distinguish between the iron of the ferratin and the iron introduced in the food, Marfori proceeded as follows: He administered to the animal a saline purgative, and fed it solely on milk; the lower part of the intestine was also cleared of saline enemata. About a week later ferratin was given in repeated doses. The amount absorbed varied between 11 and 30 per cent. of the amount administered.

With reference to the question whether ill-effects might not arise from long-continued administration of the drug, Marfori found that it was impossible to poison animals by injecting large doses into the blood; nevertheless a man would need to take about two and a quarter pounds of ferratin in the course of a month to produce a similar result, assuming as a basis for calculation experiments on dogs. Since he would actually, however, only receive about one-twentieth of that amount, there is no danger in continued administration of the drug, a statement confirmed by clinical experiments.—*Univ. Med. Magazine.*

Argentamine.—Hoor (*Klin. Monats. f. Augen.*) recommends argentamine as a substitute for silver nitrate in eye affections where the latter is indicated. Argentamine is chemically ethylene-diamine-silver-phosphate. Unlike silver nitrate, which when crystalline is acid in reaction, and when fused neutral in reaction, argentamine is alkaline, and this accounts for the fact that its application causes only slight and transient local reaction, a point much in its favor. It never gives rise to a deposit on the abraded or ulcerated cornea, which nitrate of silver sometimes does; nor to staining of the conjunctiva, nor to the disagreeable metallic taste associated with the use of the latter. It may be used in 3 or 5 per cent. watery solution, once or twice a day or oftener if required. It seems to have all the advantages and none of the disadvantages of silver nitrate.

Serum-therapy in Nervous and Mental Diseases.—At the recent French Congress of Internal Medicine (*Sem. Méd.*) Mairat and Vires reported that they had injected serum taken from a patient cured of mania into two women suffering from acute mania. In one of them each injection was followed by the onset of marked drowsiness; the agitation afterwards became as great as before. In the other case twenty similar injections were given, the dose being 5 c.cm. Each injection was followed by a feeling of drunkenness, buzzing in the ears, and heavy deep sleep. Distinct improvement, physical as well as intellectual, was the result of a first series of these injections; then the agitation became as bad as before. A second series of injections in doses of 20 c.cm. in the twenty-four hours was given. Similar symptoms followed the injections, but the improvement which followed them persisted, and finally the patient was completely cured. The authors admit that this result, which so far stands alone, may be nothing more than a coincidence; possibly also it might be explained by the improvement in nutrition brought about by the injections. Nevertheless, they think the hypnotic properties of the serum sufficiently well marked to be recorded.

Thyro-iodine.—Lépine (*Sem. Méd.*) reports on recent investigations of the active principle of the thyroid gland, especially in relation to Baumann's discovery of thyro-iodine. For the production of thyro-iodine Baumann employs several methods,

of which the best is the treatment of the gland with a solution of sodium chloride. The globulin is precipitated by a current of carbonic acid, and the solution acidified and boiled, when a precipitate of albumen and thyro-iodine falls. The latter is an organic substance combined with nitrogen and iodine (10 per cent.). Clinical observations show that thyro-iodine is very active, patients suffering from goitre and myxedema having been cured by it. Baumann maintains that the entire active substance remains on the filter after coagulation of the albumen. Fraenkel has obtained from the filtered portion a crystallizable extremely hygroscopic substance precipitated by the reagents of alkaloids having the formula of $C_6H_{11}N_3O_5$, which he has named thyro-antitoxin. He has found this substance active in the treatment of obesity and productive of certain other effects; but it exerts no influence on nutrition comparable with that of fresh thyroid or thyro-iodine. Thyroid treatment results in a marked increase in the excretion of uric acid, but in spite of the nitrogenous denutrition obvious improvement has been obtained from its use in cases of recently atrophied muscles. Hertoghe finds that the thyroid treatment exerts a marked inhibitory action on the uterus and ovaries, together with a stimulating effect on the mammary glands, of great value in checking the reappearance of menstruation during lactation, and improving the quality of the milk.

Eosote.—Grawitz (*Therap. Monatshefte*) has employed this new compound (the valerianic acid ester of creosote) during the last few months in Gerhardt's clinic. It is a labile fluid distilling at $240^{\circ} C.$, and is free from irritant or poisonous properties. It is put up in gelatine capsules, and is taken by patients without the repugnance which they usually exhibit towards creosote compounds. Each capsule contains 3 grains, and the dose commences with 1 three times a day, increasing to 6 or 9, so that nearly 30 grains of creosote can be taken daily in this form. Grawitz's experience of eosote extends to 35 cases of tuberculosis and many others of gastro-intestinal affections in which it was used as an intestinal disinfectant. Its employment was nearly always attended with complete success, and only in the rarest cases was it necessary, after many weeks to suspend or cease the use of the drug on account of digestive disturbances.

No toxic indications were observed, and the author strongly recommends the new substance on account of its palatability, its cheapness, and the ease with which large doses are tolerated.

The Action of Pituitary Gland.—Mairet and Bosc (*Archives de Physiologie Normale et Pathologique*) have investigated the effect of pituitary gland on animals, on healthy men, and on epileptics. Repeated feeding with ox's pituitary gland produced no effect on dogs; subcutaneous injection of a solution made by pounding the pituitary gland up in water only gave rise to slight and transient fever and a little wasting; intravenous injection of the fluid, as might be expected, produced death from coagulation of the blood. In a healthy man pituitary gland by the mouth was not followed by any abnormality; subcutaneous injection led to slight general *malaise* and fever lasting for twenty-four hours. Pituitary gland was administered either by the mouth or by subcutaneous injection to 21 epileptics. It was found to increase rather than to diminish the number of fits, and in addition to produce a state of mental exaltation which in some cases was quite different from any mental aberration that they had previously suffered from.

The Administration of Quinine to Children.—Binz (*Deut. Med. Woch.*) mentions certain preparations of quinine which he has found convenient in the treatment of children, who usually exhibit a great repugnance to the taste of the drug. They were tested during the epidemic of whooping-cough: (1) Quinine pearls, gelatine capsules containing gr. jss. were taken readily by children over three years, while younger children could be taught to swallow them. (2) Quinine chocolate; each piece contained gr. jss., and the bitter taste was so well covered that infants of 9 months would take them; they did not produce gastric disturbance. (3) Suppositories made of cocoa butter, and containing various doses up to gr. viiss. (4) A hypodermic solution of one part of hydrochlorate of quinine in four parts of water. With proper precautions the injections were not followed by abscesses, and were found valuable in cases of whooping-cough in which quinine could not be tolerated by the mouth. (5) Quinine may be given in enema; the quantity of solution used should not exceed ℥j. (6) Tannate of quinine, which in powder is almost tasteless, was a fairly satisfactory substitute

for other preparations, but the dose given must be double that of the sulphate, and the effect was not produced so rapidly or certainly.

MEDICINE.

Influence of the Vagus on the Secretion of Urine.—Walravens (*Archives Italiennes de Biologie*) confirms the observation of Masius and others that faradisation of the peripheral end of the vagus in the neck arrests the flow of urine. This effect is not, however, obtained if the animal is first atropinized. Hence Walravens considers that the arrest is due simply to the action of the vagus upon the heart and circulation, and not to any vasomotor fibres going from it to the kidney; if these existed, they would not be paralyzed by the small dose of atropine, which obviates the action of the vagus upon the heart. The author holds that all the observed facts may be explained by the variations in the aortic pressure. Stimulation of the central end of the vagus is found usually to increase the flow of urine, though there is often no effect. This, again, is probably due to rise of blood pressure, and is related to the polyuria following puncture of the fourth ventricle. Walravens thus concludes that the vagus exercises no secretory influence on the kidneys.

Meningitis in Enteric Fever.—Kühnan (*Berl. klin. Woch.*) observes that the disproportion between the cerebral symptoms in typhoid fever and the morbid lesions found in the nervous system have long attracted attention, and that these pseudomeningeal symptoms are well-known to experienced observers. Purulent meningitis has occasionally been seen in enteric fever. It has been put down as a mixed infection due to pyogenic micro-organisms, but it has been shown that the typhoid bacillus has pyogenic properties, and can produce this purulent meningitis. The author relates a severe case of enteric fever in a man aged 32, accompanied by hemorrhage and complicated by purulent meningitis. A bacteriological examination of the blood during life showed colonies of the typhoid bacillus. The cerebral symptoms did not appear until the thirty-second or thirty-third day of the disease. The patient rapidly became somnolent, the pulse irregular, and the urine and feces were passed unconsciously. The pupils were equal, but reacted sluggishly. There was slight retraction of the head, but no optic neuritis. Death occurred

on the thirty-sixth day in profound coma. The typhoid ulcers were nearly all in process of healing. Numerous typhoid bacilli were still present in Peyer's patches. There were slight microscopic changes in the renal epithelium. After the removal of the dura mater the convolutions were seen to be covered with purulent exudation. The pus was intimately connected with the pia mater. The presence of the typhoid bacillus in the mesenteric glands, spleen, and exudation over the convexity as well as at the base of the brain was proved bacteriologically. Here the purulent meningitis was a metastasis of the typhoid bacillus. The bacillus had penetrated into the blood, as shown by the bacteriological examination made during life, and had settled down by predilection in the membranes of the brain.

Hot-Air Baths in Albuminuria.—At the recent French Congress of Internal Medicine (*Sem. Méd.*) Carrien of Montpellier expressed his preference for hot-air baths over vapor baths and hot-water baths in the treatment of albuminuria. The hot-air bath fulfills two principal indications: it relieves the kidney by the abundant sweating which it induces, and it regulates the organic exchanges. The method of administration is very simple; all that is required being an ordinary bed with a cradle to raise the bed clothes, and a spirit stove with pipe directed under them. The patient's head being outside the clothes, the rest of his body is kept exposed to the hot air (40° C.) for twenty minutes. This is repeated every three or four days. The immediate physiological effects are a not disagreeable feeling of warmth, profuse perspiration, accompanied by acceleration of the pulse (on an average about 20 beats per minute above the normal rate), and rise of temperature from 1° to 2° C. Respiration is not in the least embarrassed. There are no ill-effects except palpitations and headache during the first baths. These symptoms last for an hour after the bath, then gradually pass off; the perspiration is the effect which lasts longest. The therapeutic effects are shown by modifications in the urine; the amount diminishes the day after the bath; then on the following day there is marked but transient polyuria, as though the kidney acted better after the short rest. The density of the urine is in inverse ratio to the amount. The urea undergoes no change. The proportion of albumen becomes much less the day after the bath; then on the following day there is marked but transient

polyuria, as though the kidney acted better after the short rest. The density of the urine is in inverse ratio to the amount. The urea undergoes no change. The proportion of albumen becomes much less the day after the bath, increasing on the ensuing days, but not reaching the former amount. Gradually the diminution becomes persistent, and the albuminuria may even disappear. Hot-air baths are indicated in cases of subacute and chronic nephritis of the epithelial form; they are contraindicated, when there is co-existing arterio-sclerosis or any inflammatory affection of the skin, and in nervous conditions.

Clinical Proof of the Typhoid Bacillus.—G. Pollak (*Centralbl. f. inn. Med.*) first mentions how, owing to the innumerable microbes found in the stools, it becomes laborious to ascertain the presence of the typhoid bacillus. Many proposals for effecting this object have been of little value to the clinician. Lyonner's colored reaction seemed at first sight to be a considerable advance, as it was simple. To ordinary bouillon decolorized with animal charcoal he added 1 per thousand carbolic acid, 2 per cent. milk, sugar, and a little congo red. In this medium it was thought that only the typhoid bacillus and the bacillus coli communis would grow. If the medium remained clear neither micro-organism was present. If it became turbid and red the typhoid bacillus was present; if turbid and violet, the colon bacillus. Pollak has been unable to obtain satisfactory results with this test. Elsner's method is very valuable. To 1 kg. of potato in 1 litre of water ordinary gelatine is added, and then 2.5 to 3 c.cm. of 1 in 10 normal soda solution for every gramme of gelatine used; 1 per cent. potassium iodide is also added just before use. The author found that the potassium iodide might be added some time previously, and yet the medium remain efficient. In twenty-four hours coarsely granular colonies of the colon bacillus, and in forty-eight the shining and finely granular colonies of the typhoid bacillus, develop. The author has used this method in 20 cases, mostly doubtful, of typhoid fever, and in 51 stools, with very satisfactory results. He appends a table showing the results obtained, and gives short notes of the cases. He inoculates 3 c.cm. of ordinary bouillon with a little of the stool, and then makes two plate subcultures. The bacillus fecalis alcaligenes grows on this medium as well as the typhoid and colon bacillus. The author concludes that

Elsner's method is suitable for clinical work. In doubtful cases it is always of value; but it must be remembered that the three above-named micro-organisms may be separated out. Thus the other tests for the typhoid bacillus must not be neglected, so as to prove that the micro-organism is the typhoid bacillus; the appearance of the plate cultures cannot be solely relied upon.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

Regeneration of Bone.—Margarucci (*Il Policlinico*), as the result of an experimental research on this subject, finds that bone, as far as concerns its nutrition, is dependent on the periosteum and medulla; as far as concerns its regeneration it is under the influence of the deep osteogenetic layers of the periosteum and the peripheral layers of the medulla. Bone regeneration may be verified even in the Haversian canals when the osteogenetic cells penetrate there, whether from the medulla or from the periosteum. Regeneration may take place quite apart from any inflammatory process; it is the effect of a specific hyperplasia. Direct ossification was the rule in the experiments. The results of simple contusion, momentary displacement, and permanent removal of the periosteum were observed and recorded, also the effect of the destruction of the medulla. The author's paper is illustrated by drawings of the histological appearances of the affected bone.

Papilloma of the Fallopian Tube.—Godart (*Annales de l'Institut Sainte-Anne*) observed this rare disease in a sterile woman, aged thirty-two, who had been married eleven years. Marked dysmenorrhœa had existed for over a twelvemonth, with very free leucorrhœa between the periods, and frequent attacks of pelvic peritonitis. The uterus was fixed, the appendages evidently diseased. Jacobs operated, and found both Fallopian tubes very adherent. The ovaries were enlarged, and showed signs of cystic degeneration. The appendages were both removed. Ascites did not exist. The operation was done four years ago, health returned rapidly, and the patient is now quite well. One tube, nearly 4 inches long, was dilated close to the uterus, forming a swelling as big as a walnut. The tumefaction was caused by an extreme hypertrophy of the plicæ, which formed a papillomatous mass. Godart considers, however, that the growth was a "pseudo-tumor," Schauta's salpingitis isth-

mica nodosa. He looks, it must be noted, on papilloma as a more or less malignant disease. On the other hand, some of the cases of innocent papilloma, already described, were probably products of inflammation rather than neoplasms.

The Influence of Pregnancy on Diseases of the Heart.—Jaccoud (*Sem. Méd.*) describes a case illustrating his contention that the existence of heart disease does not in every case, as maintained by Peter, constitute a contraindication to marriage. The patient in question suffered from a long and severe attack of acute rheumatism before marriage, with signs of cardiac mischief. Two years afterwards she married, and was able to go through three successive childbirths and one miscarriage without any distressing cardiac symptoms. After her fourth pregnancy she began to feel short of breath, and after the fifth delivery symptoms of acute asystole, with dyspnea and hemoptysis, set in. There was no doubt that permanent damage to the heart had resulted from the repeated pregnancies, and a double mitral lesion with tricuspid incompetence was diagnosed. Pregnancy is always liable to cause serious disturbances of the cardio-pulmonary circulation, and to throw additional work on the heart. Patients who suffer from mitral lesions, which rapidly affect the lesser circulation, frequently manifest towards the fifth or sixth month "gravido-cardiac" symptoms—namely dyspnea and hemoptysis. Still it is obvious that a diseased heart up to a certain point may suffer no inconvenience from pregnancy. A too hard and fast line should not be drawn in advising or withholding consent to marriage. The wishes and ideas of the patient should be considered, and also the depressing and injurious effect upon the heart of withholding consent. The degree of the lesion and the absence or presence of gravido-cardiac symptoms should be noted, the latter forming a decided bar to marriage, though the effect of treatment upon this condition should determine the final decision. The occupation and surroundings of the patient, the possibility of her taking prolonged rest if necessary, should be considered. A milk diet is of great importance; two or three litres should be taken daily from the second or third month of pregnancy. This is a powerful aid to the circulation by reason of its diuretic action, and not only are the gravido-cardiac symptoms warded off, but the appearance of albumen in the urine is prevented.

Poisoning by Chloride of Barium.—Stern (*Zeitschr. f. Med.-Beamte*) says that those engaged where this salt is employed in factories to prevent the incrustation of boilers and in laboratories as a reagent for sulphuric acid should be informed of its toxic property. A man, aged fifty-five years, drank by inadvertence some solution containing about 8.6 g. (about 130 gr.) of the salt, and was at once affected by vomiting, diarrhoea, extreme weakness, and loss of voice; an hour and a half afterwards he was given solution of sulphate of soda, and after three hours one of sulphate of magnesia, in addition to oily emulsion and mucilaginous drinks. The first solution was partly rejected. He died from collapse ten hours after taking the poison. *Post mortem* on the fourth day; the body was in advanced putrefaction; there were no signs of caustic action, but the fundus of the stomach, the kidneys, lungs, and vesical mucosa were much congested; about 0.158 g. of the chloride was recovered from the lungs and the heart, with the blood in it.

Disease of the Upper Air Passages Due to Inhalation of Flour.—Lublinski (*Centralbl. f. inn. Med.*) relates the following case analogous to one recently recorded by Gerhardt: A baker, aged nineteen, complained of hoarseness, which was at first relieved by the expectoration of whitish-gray gummy masses. Dyspnea was also present. The pharynx was dry, and here and there small whitish patches were seen on a slightly reddened base. A similar condition was found in the nares and larynx, and even in the trachea. With iodine the sputum gave the characteristic reaction of starch, and painting the pharynx, nares, and larynx with iodine solution produced a number of blue patches. The microscope showed the presence of starch granules. The treatment consisted of avoidance of the flour, and inhalations with Ems water, as well as painting the parts with a 4 per cent. zinc chloride.

Phagocytosis and Immunity.—Liakhovetsky (*Arch. des Sciences Biol. Pub. par l'Inst. Imp. de Méd. Exp.*) investigated the question of phagocytosis by inoculation of the cornea with anthrax, because the effects of leucocytosis and phagocytosis upon the bacilli in refractory and insusceptible animals, as with animals immunized with anthrax, can be investigated in the

cornea by direct observation. The animals used were dogs and rabbits, and some drops of broth culture or a suspension of bacilli in 0.75 per cent. salt solution were injected into the substance of the cornea. For control Indian ink and salt solution alone were used. The author confirms the statement that such inoculation only in a certain number of animals leads to death by general infection, but in the rest only leads to a local infection. Even with large doses such injections never killed dogs. The results obtained by the author are especially of interest in that they oppose Metchnikoff's phagocytic theory of immunity. They lead to almost the same conclusions as those obtained by Leber on infecting the eye with streptococci, by which it was shown that in those cases which end in recovery the leucocytes are not the cause of the destruction of the cocci. Liakhovetsky found that, though in several cases in rabbits the leucocytosis and phagocytosis at the site of infection plays a part, and perhaps an essential part, in the recovery, in the remainder of the rabbits and in dogs invariably the bacteria are destroyed without any share in the process being taken by leucocytes as phagocytes. (Figures of microscopic sections are given.) This extracellular destruction of the anthrax bacilli occurs in rabbits which have previously been treated by increasing doses of bacilli for the purpose of obtaining immunity to a very marked degree. Occasionally leucocytosis is first definitely recognized when the greater number of bacilli have been destroyed without any visible reaction in the corneal tissue. The few bacilli contained within leucocytes maintain their shape. As the result of these observations the author comes to the conclusion that the bacilli are destroyed by the influence of ferment bodies formed by the cells of the animal organism. "Although he recognizes the existence of phagocytosis in animals susceptible to anthrax, and grants that it plays an important part in the recovery of the infected individual from the inoculation with the virus, yet he must assert that immunity is in no wise solely brought about by phagocytosis. Phagocytosis is, on the contrary, independent of the susceptibility of the organism to anthrax, and does not run parallel with the degree of immunity."

Paperaceous Fetus.—The occasional occurrence of what is known as a paperaceous fetus is by no means a recent discovery, but the fact remains that when of moderate dimensions it is very

easily overlooked or, if noticed, misinterpreted (*Med. Press and Circular*). At the last meeting of the Obstetrical Society, Mr. Bland Sutton, who is an acknowledged authority on everything odd in the way of "formations," pointed out that even in the Society's own *Transactions* a paperaceous fetus has actually been placed on record as a tumor of the amniotic membranes. If only for this reason it is well from time to time to be reminded that under certain circumstances one of the twins may "go to the wall" and be compressed by the victorious survivor into a flattened simulacrum of its fetal form. Dr. Champneys pointed out that, though comparatively rare in the human female, the blighting of one or more fetus in the same gestation sac is the rule in certain flowers, and in bird's nests a weak sickly bird may be trampled into a "thing" virtually corresponding to the human paperaceous fetus, the nest indeed being to the bird what the uterus is to the female mammal. It is a remarkable fact that although the development of the placenta belonging to the paperaceous fetus presumably ceases when the fetus itself dies, yet many months later the chorionic villi are still perfectly distinct. It is, however, as Dr. Champneys pointed out, rather risky to argue therefrom that a piece of placenta left behind after labor or abortion displays the same structural persistence. The point for practitioners to bear in mind is that a "tumor" apparently attached to the membranes is not unlikely to be a paperaceous fetus, and if this fact be borne in mind a very superficial examination will suffice to corroborate the diagnosis.

DISEASES OF WOMEN AND CHILDREN.

Delivery in the Moribund.—Decio (*Annali di Ostet. et Ginec.*) tabulates 18 labors where women, apparently in a dying condition, were delivered *per vias naturales*; 6 children, including one of a pair of twins, seem to have lived; 5 were born dead; the remainder expired soon after delivery. Turning, after various methods, was exclusively the means employed in the 18 cases. In 6 the mother had eclampsia, 5 recovered, including the twin labor case; 3 had cerebral apoplexy, 2 recovered; 2 with advanced phthisis survived for a few weeks; 4 underwent the operation for flooding from placenta previa, 3 being saved; 1 with pulmonary congestion recovered, and 1 bleeding from an internal wound was saved; lastly, 1 injured by a fall, died.

Decio has also collected 19 cases of Cesarean section on dying women, all were graver cases than in the first table, and none recovered. In 13 cases the child was alive, making 14 children saved, as one labor was gemellar. In only 2 was the os more or less open.

Uterine Cancer in a Girl aged 19.—**Tchop** (*Gazette hebdom. médicale de la Russie Méridionale*) reports that a girl, aged 19, suffered from free hemorrhage after falling down stairs. Syncope occurred, she revived, and afterwards was troubled with occasional metrorrhagia, especially during defecation. At the end of four months the pelvis was explored, and a tumor, having all the characters of a cancer of the cervix, was detected. It had not ulcerated. The uterus was removed, and the patient recovered. The growth was a characteristic cylindrical carcinoma of the cervix, and an area of the uterus some distance above the os internum was invaded.

Dermoid Cyst of Round Ligament.—**Rendu** (*Annales de Gynéc. et d'Obstét.*) gives the above name to a tumor which he removed. He does not state that the ovary was seen during the operation, nor suggest that the tumor did or did not develop in its substance and burrow, as some ovarian tumors do, between the layers of the broad ligament. The patient was 42, and single, the tumor very large and most prominent on the left side. A bony mass could be felt through the parietes, so that the diagnosis of dermoid tumor was easy. A distinct capsule was found. Rendu describes it as sero-adipose, the fat being doubtless developed from that which is often found in the broad ligament near the ostium of the tube. On tapping, 17 pints of a greasy, coffee-colored fluid came away. The capsule was easily detached above, but enucleation below proved difficult. A big cavity was left behind, and could not be closed, so a capillary drain was introduced. Recovery was rapid. The tumor contained a large hair ball and a mass of bone of the size of a walnut, resembling in form a molar tooth.

Inversion of Bladder in Infancy.—**Alexandroff** (*Vratch*) records the case of an infant aged 2½ years. Its parents observed prolapse of the rectum without any evidence that the child strained at stool or during micturation. A few days later a small red swelling was noticed in the vulvar cleft; it grew

quickly and soon became as big as a large plum. The surface was seen to be the mucous membrane of the bladder, and the apparent pedicle was simply the urethra, which shared in the inversion. The orifices of the ureters, whence jets of urine occasionally escaped, could be plainly seen. There was no malformation. Reduction of the bladder proved quite easy.

Normal Menstruation and Pregnancy with Unilateral Absence of the Uterine Appendages.—Chavannaz (*Journ. de Méd. de Bordeaux*) found in making a *post mortem* examination of the body of a woman, aged 60, who had been operated upon for intestinal epithelioma, that the right Fallopian tube and ovary were absent, and that the uterus was retroflexed and bent slightly to the left. The patient had had three children (sex not stated), and her menses, which disappeared at the age of 50, had always been regular.

Papilloma of Ovary; Is it Malignant?—Dirner (*Centralbl. f. Gynäk.*) read before a German Society notes of a case of papilloma of the ovary which was attended with the usual alarming clinical symptoms. There was profuse ascitic effusion, and the growths, on the other hand, formed relatively small tumors. The omentum was adherent, and small papillomatous bodies were found on the peritoneum of Douglas's pouch. On microscopic examination the growths were found to be histologically innocent. Elischer considered that these innocent papillomata were more frequent than is generally suspected. He had examined a tumor which formed a very large cauliflower mass. It was lined with a single layer of cylindrical epithelium without cilia. The opposite ovary was diseased in the same manner, and was so firmly adherent in Douglas's pouch that it could not be removed. Recurrence does not seem to have occurred, but the date of the operation was not noted by Elischer. Tauffer insisted that some papillomatous growths of the ovaries were essentially innocent, others distinctly malignant. None of those who joined in the discussion suggested any way by which the two classes might be distinguished in their earlier stages.

Cancer of Ovary; Discharge through Tube.—Fabricius (*Wiener klin. Wochenschrift*) writes of a woman, aged 40, who consulted Welponer in January, 1893, for suspected pregnancy. The period had ceased for a few months, but had been replaced

by a continual discharge of bloody serum, with severe pain in the right iliac fossa. A swelling of the size of an orange lay to the right of the uterus. In June, 1893, the discharge, which had diminished, increased again, and the tumor was found to have grown larger. Chrobak removed it. He discovered a cystic carcinoma of the ovary, upon which lay a much dilated tube. There were strong adhesions, and the tube burst during extraction, letting out much greyish pultaceous matter. A year later the patient remained free from recurrence. Fabricius found that the obstructed tube had become adherent to the cancerous ovary, and the latter had discharged much of its substance into the tubal canal. The new growth was epithelial. Winter described a similar case in 1887.

Treatment of Uterine Disorders by the General Practitioner.—Dr. D. S. Maddox writes to the *Medical Summary* that a very large percentage of the ailments of the female pelvic organs can be relieved and cured by intelligent and well-directed local and constitutional treatment, is a fact which is becoming more and more evident every day. The profession at large, however, has given way to the craze for indiscriminate operating; not only in the domain of gynecology, but in every branch of the art and science of medicine, until now the general practitioner is become little else than a drummer for the surgical specialist. Such abject and absolute surrender to the specialist has injured the physician in more ways than one. The family physician is beginning to see the disadvantages, both to himself and patient, of this wholesale deference to the specialist, and in consequence thereof many physicians are now treating cases successfully. In order to illustrate, in a measure, the value of local and constitutional treatment he submits the subjoined clinical notes.

CASE I.—A married woman, age 32. For several months had complained of dull heavy pains in abdomen and back, worse during menstrual periods. Menstruation was scanty and irregular, and there was a moderate leucorrheal discharge. She had lost flesh, was weak, had little appetite, and slept badly.

A specialist whom she had consulted had advised removal of the ovaries and tubes, as the only relief. Examination revealed ovaries tender and somewhat enlarged; also endometritis.

She was ordered a hot boric injection twice daily, and put upon the following prescription:

R Dioivurnia ℥ij.
 Fl. ext. cimicifugæ
 Fl. ext. hydrastis āā ℥ss.
 Elix. simp q. s. ad. ℥iv.

M.

Sig.: Two teaspoonfuls four times a day.

Under the above treatment improvement began at once, and in two months she was discharged cured.

CASE II.—A virgin, age 21, pale, anemic, nervous, and of poor muscular development. For two years menstruation had been profuse, with occasional metrorrhagia. Her principal trouble, however, was dymenorrhea, the severity of the attacks often compelling her to resort to opiates. The following prescription was ordered, conjoined with regular and systematic exercise in the open air:

R Sodii brom ℥iv.
 Dioivurnia ℥ij.
 Fl. ext. ergot ℥iv.
 Elix. simp ad ℥iv.

M.

Sig.: Two teaspoonfuls three times daily.

This was continued for eight weeks, when an addition was made to the treatment in the shape of elixir iron, quinine and strychnine. An occasional saline laxative was also given to overcome a tendency to constipation. The patient has now, at the end of three months, gained sixteen pounds in weight, and the menstrual function is normal. In conclusion he remarks that the preparation dioivurnia contained in the above prescriptions is one of the best uterine remedies he has ever encountered.

Care of Premature Infants.—Dr. Gilbert, before the Kentucky State Medical Society (*Ex.*), said that statistics show that 20 per cent. of infants born at sixth month have survived, 35 per cent. at seventh month, and at eighth month 85 per cent. It is too often the custom to turn premature infants over to old women, without any attention. A physician is inexcusable if he allows a premature infant to die from sheer neglect. To preserve life especial attention must be paid to the maintenance of bodily temperature, proper feeding, prevention of injury by handling.

The temperature should be maintained at 100° F.; evaporation of moisture goes on from the body, no matter how closely it is wrapped in cotton or clothing. Incubation is the best method of maintaining bodily temperature. The apparatus recommended consists of two tin boxes, with a two-inch space between for warm water. The water is heated by a coal-oil lamp placed under a small copper water-box connecting with a water-chamber by small pipes. The top of the box is open to allow the infant air and light. Any tight box may be improvised. Feeding is important, mothers' milk being the best food; lavage may be used. A mixture which has proved successful in the author's hands is as follows:

R Sweet milk, fresh	3ij.	60.
Cream, fresh.....	3iij.	90.
Warm water, sterilized.....	3x.	300.
Sugar of milk.....	3j.	4.
Common salt.....	9j.	1.30

This should be diluted for a premature infant. The infant after birth should be anointed with warm lard, the vernix having been wiped off; no water should be used at the first cleansing, nor should the infant be washed until it is three weeks of age.

Stomatitis in Small Children.—The following is Hare's formula as given in the *Medical Summary*:

R Potassii chlorat.....	3j.
Tinct. myrrh.....	gtt. xx.
Elixir calisayæ.....	3iij.

S. Teaspoonful in water every few hours.

This prescription should not be used if there is present a condition of acute nephritis.

SURGERY.

Prof. Senn's Address before the American Medical Association.—The greatest onslaught of modern surgery has been upon the organs of generation of male and female. It is somewhat strange that the organs created for distinguishing the sex and for the increase of the human species should have been singled out as innocent of so-called modern aggressive surgery. The future historians who will read the work of many gynecologists belonging to the present generation will have reason to express their surprise at what disasters the art of surgery has produced when applied in cases far in advance of a scientific

foundation. Here and there we hear a feeble voice protesting against indiscriminate surgery upon the organs of generation of the opposite sex, but the mutilating work continues in spite of such opposition and well-meant advice. Every competent and honest gynecologist knows that in his sphere the art of surgery has been thoroughly abused. It is difficult to assign tangible reasons for such a fearful state of things. It appears to belong to the spirit of the present generation—the outcome of ceaseless unrest in pelvic surgery. When I arraign the gynecologist before the body composed of representative medical men of this country for innumerable and inexcusable transgressions of the rules which ought to govern and control the art of surgery, I do not include the scientific, honest, conscientious worker in that department of surgery; but my remarks will apply to a class of routine operators which has recently grown to alarming dimensions, not only in this, but in nearly every country which has been penetrated by the dim rays of so-called surgery.

I stand here in the capacity of the conservative element in these days of wild, unfounded surgery to place myself on record in protesting against the unnecessary mutilation of the sexual organs of either sex, willing to stand or fall by the sentiments of the great mass of general practitioners, which, after all, must be regarded as the backbone and final tribunal of our profession. The frequency with which women are being castrated to-day is one of the most flagrant transgressions of the limits of the art of surgery. It is not unusual for one operator to exhibit from five to six normal ovaries as the result of a half-a-day's work. All kinds of excuses are made for this kind of surgery. The ovaries are too large, cirrhotic, coslic, or perchance a ruptured Graafian follicle is discovered, when he consoles himself that he has removed an applectic ovary. Where is this wholesale unsexing of our female population going to end? The beginning of the end has come. The army of women minus their essential organs of generation is beginning to raise its voice against such mutilating work. The number of women who willingly sacrifice their ovaries to restore their shattered health without securing the expected relief has increased to an alarming extent. This sad experience has made the gynecologists more desperate and bold. They have been importuned by their castrated, tubeless patients to such an extent that the art of surgery was again re-

sorted to. The uterus, which heretofore had been comparatively safe, was now selected as the offending body, and vaginal hysterectomy became at once a popular operation. Many atrophic uteri remaining after removal of their appendages have been removed in a vain hope of securing permanent relief. Vaginal hysterectomy for diseases other than carcinoma is now at its height. The uterus is being removed for hypertrophy, endometritis, flexion, version and minute myofibromata. This important organ is no longer safe if it is in the vicinity of a pelvic abscess. Perchance a healthy uterus is removed under the pretence of securing a more direct route to a focus or foci of pelvic inflammation.

Ovariectomy per Rectum During Labor—Death.—Sevitsky (*Annales de Gynéc. et d'Obstét.*) describes a case in which during labor at term the foetal head was arrested by a dermoid tumor of the right ovary. By means of the forceps the head was brought to the outlet, the tumor bulging through the anus burst the rectal wall. Its contents were emptied, and the foetus was then easily extracted; it was already dead. Lastly, the cyst was drawn down and amputated, the rectal wall being carefully sewn up. Bad flooding occurred during the expulsion of the placenta. The patient died in thirty-three hours, of pelvic peritonitis.

"Hepatopexy" for Floating Liver.—E. Arellza (*Rev. de Med. y Cirugia Practicas*) reports the case of a lad of twenty, who came to him in 1890 complaining of symptoms which made life a burden to him. Every two or three months he had attacks commencing with a feeling of cold all over the body, followed by pain, vomiting, prostration, and loss of consciousness. These attacks incapacitated him for four or five days, and on leaving his bed he was as weak as if he had been through a serious illness. It could not be ascertained whether the attacks were accompanied by rise of temperature or jaundice. The patient had been subject to these from his earliest infancy. Physical examination revealed an enormous tumor in the right hypochondrium, extending three fingers' breadth below the ribs, filling up the greater part of the umbilical region and reaching to the left hypochondrium. A diagnosis of hydatid cyst was made, and abdominal section was performed, with a view to operative treat-

ment of the tumor. On opening the peritoneum, however, the liver, which presented in the wound, was found to be perfectly normal, but lying low down in the abdomen, and very movable. It was attached by four silk stitches to the belly wall, the surface being touched here and there with the thermocautery. The patient made an excellent recovery, and left the hospital a fortnight after the operation. He came to Areilza five years later for a certificate, and informed him that since the operation he had had no further attacks, and had been perfectly well. His appearance was robust, and he was able to do hard mechanical work without trouble. The liver was found to have kept the position in which it was sutured.

Pelvic Abscess Followed by Vesical Fistula—Recovery.—Baumgartner (*Berl. klin. Wochenschr.*), seven years previous to operation, the patient, a woman, passed through a typical attack of appendicitis, with the complications of thrombosis in the right femoral vein and perforation into the bladder, with discharge of pus. There were many relapses of the acute symptoms with increased exudate in the right side of the pelvis. The purulent discharge from the bladder never ceased. Its examination gave no clue to its origin. The pelvic organs on the right side were held in painful adhesions. Three years after the origin of the inflammation an acute exacerbation was followed by discharge of pus per anum. This ceased after a time.

Seven years from the first symptoms laparotomy was performed. The swollen appendix vermiformis was excised. There was no evidence of perforation in it. The abscess was situated in the broad ligament. It was drained from the vagina and the abdomen closed (*Ex.*). Five months later, as the discharge of pus into the bladder persisted, vaginal hysterectomy was performed, and the bladder sufficiently dissected from its bed to allow the fistula to be brought into view. The opening was about the size of the forefinger. It was closed, Lembert style, and a catheter left in position. There was only slight fever—less than before the operation; but the purulent discharge continued for a long time. In four weeks the silk stitches came away through the catheter. This was removed in five weeks. It was seven months before the urine was permanently clear and the patient entirely well.

The case is interesting as showing the ability of the bladder to resume its normal condition after the removal of irritating discharges which had lasted over seven years.

The source of the pus was not determined.

GENITO-URINARY SURGERY.

Formalin in Diseases of the Genito-Urinary Tract.—Lamargue (*Ann. d. Mal. d. Org. Gen.-Ur.*) says he has tried the effects of formalin in acute and chronic gonorrhea, and in cystitis of various forms, especially tubercular cystitis.

Its employment was by irrigation in the manner in which permanganate of potassium is used and by injections and instillations. In making up his solutions, which were 1:500 of water for irrigation and 1:100 for instillations, the unit is the drug as furnished by the French pharmacopeia, which is really a 40-per-cent. solution of the pure drug in alcohol. The results appear to be about the same whether irrigations or instillations are employed. In acute and chronic gonorrhea the number of cases in which the drug was used is too small to draw any conclusions as to its value. None of the acute cases cited were in the early stages, all being past the fourth week of the disease. The treatment appears to cause considerable pain, lasting five to twenty minutes, and the results do not seem to be any better than in the case of other well-known drugs.

In tubercular cystitis it promises to prove of real value. He used it in five cases, in all of which the bacillus of tuberculosis was found present, in some of which bichloride and iodoform instillations had already been tried without much benefit. In all five cases there was marked improvement in all the symptoms, the blood disappeared from the urine, there was marked lessening of the pain, and the frequency and urgency of urination markedly diminished. He believes it should be used at least every second day to be of benefit. As used by instillations in strength of 1:100 the pain was supportable, lasting from five to twenty minutes, but the pain consequent upon lavage in strength of 1:500 was more intense, but was obviated by a previous injection of a solution of antipyrine.

Cystitis in the Female.—The best results may be obtained from following the plan first outlined by Hërsler: (1) To remove any discoverable source or sources of irritation which act through

the medium of the urine. They may be affected by a milk diet and the discontinuance of the use of acids, pepper, etc. Any mechanical source of vesical irritation should receive appropriate treatment. (2) The urine should be rendered bland by the use of a milk diet, the ingestion of considerable quantities of water, the administration of potassium citrate if the urine be too acid, or of boric acid and salol if it be alkaline. (3) Pelvic congestion should be relieved by hot vaginal douches, placing the patient in the knee-chest position, and the correction of constipation. (4) The inflamed cystic mucous membrane may be relieved by the administration of boric acid, ol. santali, copaiba or creosote by mouth; or the use of injections of boric acid, carbolic acid or nitrate of silver in suitable strengths. (5) The patient's general health should be improved by tonics, etc. (6) Rest in bed, especially in all acute cases, is absolutely imperative. While advocating direct local treatment for cases of cystitis which do not readily respond to ordinary therapeutic measures, I must advise that it should be employed with judgment and caution.

Treatment of Hypertrophied Prostate—Vautrin (*Archives d'Electricité Médicale*) reviews the methods of dealing with enlargement of the prostate in its various stages. Early in the disease catheterisation is valuable, but may be dangerous if not entirely aseptic, particularly when entrusted to the patient himself. In such cases electrical treatment is often of great service. Vautrin uses a gum elastic sound with the end cut off; it is traversed by a copper thread terminating at one end in an olive-shaped bulb of the same metal, at the other in a ring to which the negative rheophor can be attached. The sound is introduced into the urethra, so that the bulb is in contact with the prostatic urethra. The result of electrolisation is a marked diminution in the size of the gland, probably to the awakening of the dormant activity of its smooth muscle fibres. This view is confirmed by the fact that the old-standing cases in which sclerotic changes have taken place in the prostate electricity is unavailing. The author considers that electrolysis should therefore be restricted to the early stages of hypertrophy, in which it is most valuable as determining a change in the intimate structure of the gland. Later on, when definite and permanent retention, together with other changes, has supervened, perineal drainage and suprapubic cystotomy are valuable remedies; it is

here, also, that castration or section of the vasa deferentia are often efficacious, and at the same time practically without danger. Prostatotomy and prostatectomy should, on the other hand, always be reserved for exceptional cases.

DISEASES OF THE NOSE, THROAT AND EARS.

Tuberculosis of the Tonsils.—Hans Ruge believes tuberculosis of the tonsil is much more frequent than has been heretofore assumed (*Virchow's Archiv.*). It can seldom be demonstrated clinically, because ulceration is often absent. The only symptom may be enlargement of the tonsil. The occurrence of primary tonsillar tuberculosis is probable. He reports what he believes to be such a case, the tuberculous process extending from the tonsil to the cervical vertebræ. He also reports a case in which caries of the spine seemed to have followed tuberculosis of the tonsil. The author made microscopical examinations of the tonsils from seventeen individuals. Seven of the cases had tuberculous deposits in other localities. In five cases, also complicated with pulmonary tuberculosis, tubercle bacilli were demonstrated in the tonsil tissue. These observations of the author agree with the results of Strassman, who found tubercular infection of the tonsils in thirteen out of fifteen cases of tuberculosis of the lungs.

Tuberculous infection may occur in various ways. 1. Through the blood, *e. g.*, miliary and other forms of generalized tuberculosis. 2. Through the lymph, *i. e.*, secondary to tuberculosis of the cervical glands. 3. Through the sputum, particularly in tuberculosis of the lungs. 4. Through the inspired air. 5. Through the food, particularly milk and flesh infected with bovine tuberculosis.

The author concludes that the tonsils are an important primary seat of tuberculous infection. Children who suffer from enlargement of the tonsils should not be permitted to live with phthisical relatives, especially if the latter have expectoration. For not only is the inspired air laden with tubercle bacilli, but the food and eating and drinking utensils may be contaminated with bacilli from the air or hands and mouth of the infected one. When the tonsils have been enlarged for a long time they should be extirpated, and removal may be beneficial even when tubercle already exists.—*Med. Standard.*

For Dyspepsia and Vomiting in Tuberculous Subjects.
—According to the *Gazette Hebdomadaire de Médecine et de Chirurgie* for October 15th, Dr. Barth recommends this formula:

℞ Prepared chalk,
Calcined magnesia 3 gr.
Manganese dioxide 1½ gr.
Powdered belladonna 1⁵/₁₀₀ gr.

M.

For one dose, to be taken after eating.

If there is severe pain, $\frac{15}{100}$ of a grain of powdered opium may be added.

The Treatment of Phreno-glottic Spasm in Sucklings.—Vergniaud (*Journal de Clinique et de Thérapeutique Infantiles*, 1896, No. 29; *Wiener Klinische Rundschau*, October 25, 1896) gives a drop or two of chloroform by inhalation during the spasm, and prescribes the following:

℞ Tincture of musk 20 drops.
Tincture of belladonna 10 "
Cherry-laurel water 120 grains.
Syrup of orange 300 "
Lactucarium water 1,500 "

M.

S. Five or six teaspoonfuls to be taken twice a day.

Tinnitus Aurium.—If due to quinine, this may be readily overcome by the administration of belladonna.—*Med. Age*.

A Gargle for Follicular Amygdalitis.—Levy (*Semaine Médicale*, September 23, 1896; *Wiener Klinische Rundschau*, October 11, 1896) recommends the following:

℞ Creosote 8 drops.
Tincture of myrrh,
Glycerin 3ā 900 grains.
Distilled water 1,800 "

M.

—*N. Y. Med. Jour.*

To Relieve an Acute Coryza.—A prescription given in *La Médecine Moderne* is:

℞ Chloral gr. x
Castor-oil f oz. s

M.

Sig. To be applied to the nasal mucous membrane.

—*Med. Bulletin.*

Migraine.—Following the experiments of Berger in combining certain antipyretic and analgesic agents for the relief of various forms of neuralgia, Dr. Veasy has found the following combination of great service in the treatment of migraine:

R Phenazone	32 gr.
Phenacetin.....	24 gr.
Acetanilid.....	8 gr.

Mix.

Divide into 8 powders.

One of these powders is given as soon as the approach of the attack is discovered, and repeated twice at intervals of a half hour if relief is not obtained before the expiration of this time.

—*Phila. Polyclinic.*

The Treatment of Pulmonary Congestion in the Asphyxial Stage by Cold Applications to the Thorax.—At a recent meeting of the Société de Médecine et de Chirurgie Pratiques, a report of which appears in the *Jour. de Méd. de Paris* for October 18, M. Saint-Yves Ménard stated that he had employed this treatment in the case of a child who was suffering from whooping-cough. The patient presented an intense pulmonary congestion, with dangerous symptoms of asphyxia. The rectal temperature was 101.6° F., the pulse 138, and the respiration 66.

As the symptoms of asphyxia were so alarming, the author covered the patient's chest with cold compresses, which were removed every fifteen minutes. This treatment was continued during the night, and on the following morning the patient was much better. The number of inspirations fell to forty-four, the dyspnoea almost completely disappeared, and the patient recovered.

M. Saint-Yves Ménard thought that in this case the treatment was certainly the cause of recovery. It acted in two ways, he said: first, by withdrawal of the heat; second, by revulsion. It had, furthermore, the power of producing a really extraordinary quieting effect, and was more easily employed than cold baths.—*N. Y. Med. Jour.*

Calomel per Nasum.—A new method of administering calomel is given by Dr. J. N. Hall, of Denver, Colo. (*Med. News*). He says that in cases where the medicine could not be given by the mouth without a struggle, a simple and effective expedient

is to blow the calomel into the nostril through a tube or roll of paper. The patient may be blindfolded, or, better, led to shut their eyes tightly, to escape having the application made directly to them, for such deception is certainly justifiable in some cases. The drug is nicely distributed over the nasal tract, finds its way into the intestinal tract, and operates as if given by mouth. It is not painful nor disagreeable, as has been demonstrated by personal trial.

F. M. R.

ORTHOPEDIC SURGERY.

Congenital Luxation of the Hip Joint.—Lorenz claims to avoid the disadvantages of the methods of Mikulicz, Paci and Schede, by what he calls his functional method (*Jour. Am. Med. Ass.*). He proceeds first by reduction, then reposition, formation of the acetabulum and restitution. Reduction is accomplished by extension, with the use of the screw in narcosis; reposition by flexing, opening the acetabular cavity, and maximal abduction. The amount of outward rotation varies in different cases, and the smallest amount of abduction that will accomplish the reposition and maintain it is the limit. Then follows three months' fixation of this position with an immovable bandage. The soft parts that formerly prevented, now press the head of the femur into place in the acetabular region, thereby modeling it in a measure. In the severest cases the limb can not be walked on for two or three months, as the amount of original abduction does not allow the use of a raised sole at first. This can be resorted to later as abduction grows less, and it is made lower by degrees from four to two centimeters, etc. The treatment lasts from six months to a year. It is adapted for children up to 6 years. Surgical intervention is necessary, of course, in cases of irreducible luxation. Double-sided luxations are treated together at the same time. Lorenz has treated thirty cases successfully in this way. Four double luxations produced unsatisfactory results. The advantages of this treatment over the surgical are that the number of passive movements is less, the treatment requires less time, and the leg is not shortened so much. Lorenz also emphasizes the importance of ambulatory after-treatment.

MEDICO-LEGAL.

The Anatomy of Rape.—In an interesting article on the Anatomy of Rape, which appeared in the *University Medical Magazine*, by Dr. W. Constantine Goodell, the following is a brief summary:

1. That complete penetration, with the ejaculation of semen, is not necessary alone to constitute rape, but that merely partial penetration of the male organ between the lips of the vulvar orifice, with or without ejaculation, is sufficient.

2. That defloration of a very young virgin, even supposing that force was not used, should show evidences of rape, from the very disproportion in size between the penis and the vagina.

3. That the hymen is of the greatest value in determining whether coitus has taken place or not, notwithstanding the unanimous opinion of the older writers to the contrary.

4. That there is a line of demarcation, formed by the edge of the genital mucous membrane, *within* which, impinging of the male organ, with or without the ejaculation of semen, would as surely constitute rape as though complete penetration had occurred.

5. The great difficulty and often absolute impossibility of determining whether rape has been committed, when only partial penetration has been secured and ejaculation has not taken place.

6. The inability to successfully differentiate between marks of violence due to the penis and abrasions from attrition caused by walking, or some form of traumatism.

OPHTHALMOLOGY.

Use of Sutures after Cataract-Extraction.—C. H. Williams has used a suture in the conjunctival flap, and reports (*Boston Medical and Surgical Journal*) eleven cases with favorable results. He makes his incision in the periphery of the cornea, inclining the edge of the knife slightly backward, and cutting out with very gentle pressure, leaving a small flap of conjunctiva attached to the cornea. After the extraction of the lens this flap is united to the ocular conjunctiva by from one to three sutures of fine sterilized black silk. This secures the advantage of a conjunctival flap without any risk of its becoming rolled up or included in the wound, and lessens the danger of subsequent hernia of the iris or vitreous prolapse.

Enucleation of the Eye Under Cocaine.—Michael Mohr (*Wien. klin. Rundschau*) records five cases of enucleation of the bulb under cocaine. The drug was used in 5-per-cent solution, and was dropped repeatedly into the conjunctival sac till the eye was insensitve. The operation was then rapidly performed, and was quite painless. One of the patients was an old man, aged 84, emphysematous, and with a hypertrophied prostate; the heart was much dilated, and there was some cystitis, so that the administration of a general anesthetic would have been a very serious matter. The eye-trouble was glaucoma. Another glaucoma case treated with equal success was in a child of eight months; the glaucoma was here secondary to tuberculous iritis.

Acute Contagious Conjunctivitis.—The occurrence of acute conjunctivitis, apparently by contagion, has long been noted, and some ten years ago J. E. Weeks described, in connection with such cases, a special form of bacillus, which has since been recognized by others (*Am. Jour. Med. Sc.*). Victor Morax and A. W. Beach (Paris) have recently made an extended bacteriological and experimental study of the subject (*Archives of Ophthalmology*). They give the disease the title of "acute contagious conjunctivitis," and find it characterized by the presence of the special micro-organism which has received the name of Weeks's bacillus.

It is always contagious; frequently epidemic. The symptoms, which vary in severity, begin two or three days after infection with glueing together of the eyelids on awaking in the morning, and small yellowish masses at the base of the lashes. There is increased lacrymation, congestion and turbid discharge. It usually begins first in one eye, but affects both in its course. There are burning pain and the sense of a foreign body; the lids are swollen and discolored; and the eyeball is of a rosy tint, which has given the affection the name of "pink-eye." The symptoms continue to increase for two or three days, and frequently a slight coryza arises.

The disease runs an acute course, recovery being usually complete in two or three weeks, although some cases continue several weeks or even months. It is more severe in adults than in children. In severe cases there may be marked purulent discharge and slight chemosis, and the cornea may become involved. The prognosis is, however, quite favorable. It should be treated

by applications of nitrate of silver, of the strength of 1 to 40 or 1 to 50, weaker solutions being less effective. The bacillus is found by a microscopical examination of the discharge with a one-twelfth immersion objective. The cultures of it are best obtained on five-tenths per cent. agar, the tubes being corked to prevent evaporation from the surface, or in a mixture of human serum with peptonized agar. The bacilli are devoid of movement. Inoculation on animals of different species gave results constantly negative. Inoculation of a culture on the human conjunctiva produced a typical attack.

Albuminuric Retinitis.—Moglie (*Il Policlinico*), who has made a study of the subject, finds that the primary alterations in the retina are along the course of the vessels—arterio sclerosis, hyaline degeneration, etc. They are not due directly to kidney disease, but to a common cause. Albuminuria experimentally induced does not cause retinitis; and, *vice versa*, there may be an albuminuric retinitis without any albuminuria. As to the question of precedence between retinitis and Bright's disease, the author is unable to decide definitely. The white patches in the retina generally attributed to fatty degeneration are, in the author's opinion, only transformed hemorrhages. One cannot diagnose Bright's disease from ophthalmoscopic observation alone, however characteristic the appearances may be. Neither is it possible to differentiate between the various forms of nephritis by ophthalmoscopic examination. The author agrees with the common opinion as to the seriousness, *quoad vitam*, of the appearance of albuminuric retinitis; curiously enough, the prognosis is said to be slightly better in alcoholics.

Edematous Neuritis of Intracranial Origin.—H. Parinaud (Paris) thus designates choked disk or papillitis occurring with brain-disease, and argues (*Annales d'Oculistique*) that optic neuritis of intracranial origin is primarily a lymphatic edema of the nerve. The edema is produced by the same influences and the same mechanism as the edema in the cerebral substance, of which the optic nerve forms a sort of orbital prolongation. It is most frequently combined with hydrocephalus and the increase of intracranial tension which accompanies it, but it does not necessarily imply the existence of ventricular hydropsy. Furthermore, the excess of intracranial tension seems to be incapable alone of producing papillary edema.

William F. Norris (*University Medical Magazine*), calling it papillitis, says that most investigators are inclined to the view that it is a local inflammation of the intra-ocular ends of the optic nerves, caused by infiltration of the head of the nerve with infected serum. This fluid passes down between the pial and dural sheaths of the nerves, carrying with it ptomaines, bacilli and tumor-elements, which, owing to neoplastic or to degenerative processes in the intracranial growth and its vicinity, have found their way into the subdural and subarachnoid spaces; and which, accumulating at the distal ends of these lymph-channels, cause an infectious and symptomatic inflammation.

The accumulation of serum, probably infected, in the tissue of the head of the nerve and around it has been demonstrated in many autopsies (*Ex.*); but the infectious nature of the infiltration is, he believes, only positively proved in those cases in which tubercle elements and bacilli have been found in the intra-ocular end of the nerve.

NEUROLOGY.

Operative Treatment of Partial Epilepsy.—In the *Deutsche Medicinische Wochenschrift*, Sachs and Gerster of New York give the results of operation in nineteen cases, and arrive at the following conclusions (*Jour. A. M. A.*): 1. Those cases of partial epilepsy are suitable for operation in which at most one to three years have elapsed since the trauma or onset of the disease. 2. In depression of the skull, or in other injuries to the skull, operative interference is indicated even in after years. The prognosis, however, is less good the longer the elapsed time since the original injury. 3. Simple trephining may suffice in many cases; this is especially true if one is concerned with skull injury or with cyst formation. 4. Excision of the cortical lesion is advisable, if the epilepsy is of short duration and referable to an exactly localizable portion of the brain. 5. Since such lesions are often only visible microscopically, excision should be undertaken even if the diseased part microscopically appears normal. Still one should, however, use the greatest caution, in order that the proper portion be excised. 6. Surgical interference in epilepsy occurring in connection with infantile cerebral paralysis is permissible, if it occurs not too long after the onset of the paralysis. 7. In old cases of partial epilepsy, in which very probably an extended degeneration of

association fibers has taken place, surgical interference is entirely useless.—*Boston Medical and Surgical Journal*.

Treatment of Tic Douloureux.—C. L. Dana (*Chicago Medical Recorder*) describes a method of treatment which he has adopted for two years in hospital and private practice with satisfactory results. The method consists of the following procedures: 1. The hypodermic injection of massive doses of strychnine. 2. The administration of stimulants, such as iodide of potassium and of tonics, including especially large doses of tincture of iron. 3. Rest in bed with light diet and diuretics. The treatment admits of no halfway measures. The patient must take the full course, and sometimes even a second or third course. 4. The use of strychnine. This is given in single daily doses, hypodermically. He usually begins with $\frac{1}{30}$ gr., and this is very slowly increased until by the fifteenth or twentieth day $\frac{1}{8}$ to $\frac{1}{4}$ gr. is given. Most patients cannot take over $\frac{1}{8}$ gr., an excess being shown by stiffness in the jaws and legs, trembling, and nervousness. Sometimes the largest doses are not borne well, and are not advisable; but this is rare. He has noticed that the large doses, $\frac{1}{15}$ to $\frac{1}{8}$ gr., often have a decidedly anodyne effect, quieting the patient for hours like a dose of morphine. Sometimes the largest doses temporarily increase the pain, but this is certainly rare. The best results are in those who feel the anodyne effect. After reaching the maximum dose the strychnine should be continued for a week or ten days, and then gradually reduced, so that by the end of five or six weeks the dose commenced with is reached. The drug is then stopped, and the patient is placed on iodide of potassium 5 gr. t. d., increased to 20 gr., and tincture of iron 5 m., increased if possible to 20 m., and well diluted. In some cases salicylate of potassium replaces the iodide, or nitro-glycerine is added to the iodide of iron. Rest in bed is a point in the management of tic which cannot be too stringently insisted upon. The room should be kept as nearly as possible at 68° F., and the air should be moderately humid. At the end of four weeks the patient is allowed to go out for two hours daily, and at the end of six weeks he can resume his ordinary avocations. Details are given of eight cases (six men, two women) treated in this way; the ages ranged from 43 to 70. The branches of the trigeminal nerve most affected were in six of the cases the second, or the second and one other branch. The

duration of the malady before the line of treatment described was adopted ranged from two to ten years, averaging six years. Relief was obtained in all but two of the cases, and in one of these the method was not fully tried. The duration of the relief in five cases has been from one year-and-a-half to two years. In two cases treatment was finished four months ago. In three cases there was a slight albuminuria. In one case the disease was complicated with a motor tic, and in one case it was complicated with severe heart lesion as well as albuminuria. The maximum dose of strychnine in all cases reached $\frac{1}{8}$ to $\frac{1}{4}$ gr. The author concludes, after much disheartening experience with aconite, iodide, gelsemium, salicylates, tonics of various kinds, electricity, etc., that the method of treatment above described is the most useful.

Sleeplessness in Melancholia.—Insomnia is frequently one of the most troublesome and obstinate symptoms with which the physician has to contend in the management of cases of melancholia. These patients are especially apt to yield to the seductive influence of such hypnotics as morphine and chloral and to become conformed habitues. For this reason these drugs, if used at all, should be employed with the greatest circumspection. In some of these cases certain non-medicinal measures, as warm baths, the cold douche, massage, and exercise in the fresh air, will bring the longed-for sleep, and should always be given the preference. There always remain, however, a fair proportion of cases in which a hypnotic is positively demanded, and for this purpose sulfonal is claimed by many neurologists to be especially desirable. If properly administered in hot fluids, as milk or tea, one-half to one hour before retiring, it produces calm, refreshing sleep, resembling the normal, without the risk of inducing a habit or disturbing the nervous system. In the treatment of simple melancholia, Dr. H. M. Schnetzler (*Toledo Medical and Surgical Reporter*) advises administration of 15 grains sulfonal every hour until sleep is secured, and he also relies upon this hypnotic in cases attended with delirium in conjunction with veratrum viride and bromides. The author also emphasizes the value of hydropathic measures, as cold shower baths of short duration, especially in melancholia accompanied with stupor, where they will sometimes produce satisfactory sleep without the employment of internal medication.

Book Reviews.

An American Text Book of Physiology. By Henry P. Bowditch, M.D., John G. Curtis, M.D., Henry H. Donaldson, Ph.D., W. H. Howell, Ph.D., M.D., Frederick S. Lee, Ph.D., Warren P. Lombard, M.D., Graham Lusk, Ph.D., W. T. Porter, M.D., Edward T. Reichert, M.D., and Henry Sewall, Ph.D., M.D. Edited by WILLIAM H. HOWELL, Ph.D., M.D. Imperial 8vo., pp. 1052. Fully Illustrated. [Philadelphia: W. B. Saunders, 1896. Price, Cloth, \$6.00; Sheep, \$7.00; Half Morocco, \$7.00.

The series of American Text-Books published by Saunders has established a reputation for itself second to none, and has attracted and won for itself the unqualified praise of the entire profession as well as of all teachers in medical colleges. One fact which we have noted in connection with these books, is that each volume was an improvement on its predecessor, and the one before us is, without doubt, the best of the entire series in point of merit as well as of thoroughness.

The list of contributors includes the names of the best teachers of physiology in the leading universities of this country, and the fact that an accomplished and eminent professor of this branch of the Johns-Hopkins University acted as editor, is an ample guarantee of the worth, thoroughness, and reliability of the work. There is not a chapter in the whole book which has not been illustrated with the greatest care, and undergone the strictest supervision under the hands of most competent and critical authority. This alone should serve as a guarantee to any one, and should establish the worth of such a text-book.

Whilst this volume is entitled a text-book, it could well lay claim to being a treatise, as each subject is fully considered and a pretty full literature quoted in connection with it. The authors do not claim to be up to the latest discoveries by any means, as this would be a manifest impossibility. New discoveries are being daily published, and any attempt to keep pace with them would retard the appearance of a work indefinitely and prohibit its publication. What has been done in this one, and in a thorough manner, has been to lay the groundwork of the subject in such a manner that a thorough comprehension of its details is a comparatively easy task, and the careful reader and conscientious student is placed in that position where he can understand the drift of the work of experimental physiologists and appreciate the value of their efforts.

We cannot enter into an analytic discussion of the merits of the work, as it would involve a critique which would be too lengthy. Secretion, Digestion and Nutrition, Circulation, and Respiration are particularly valuable chapters. They are so, not because they are superior to the others, but in view of the fact

that the subjects themselves are of more than ordinary interest to the physician. The introduction by the editor is masterpiece, which should entirely awaken a more than ordinary interest in the subject of physiology in any one possessed of sufficient intelligence to appreciate this most important branch, not only of medicine, but of science.

One point in connection with the work before us is that it is unique in one respect—it is the first text-book on the subject which is the result of the collaboration of a number of authors. All those which have appeared heretofore have been the result of the undivided work of one individual, who may, unconsciously, have been led to lay greater stress upon one particular topic. In this work each subject is given its proper prominence, and none has been sacrificed to any other.

We cannot say too much for Saunders' Text-Book of Physiology. It is alone in its field, and it is destined to hold its place, for it would be a most difficult task to gather a more brilliant list of contributors, and well-nigh impossible for any one to produce such a comprehensive work unaided. From a mechanical standpoint, the book is unexceptional. It is uniform with the other text-books, and is, like all of them, profusely illustrated. We can unhesitatingly recommend it, not only to medical students, but to all physicians, for we still cling to the opinion that they are all interested in physiology. We hope to hear of the exhaustion of this edition at an early date.

An American Text-Book of Applied Therapeutics, for the Use of Practitioners and Students. Edited by J. C. WILSON, M.D., assisted by AUGUSTUS A. ESHNER, M.D. Imperial 8vo., pp. 1326. [Philadelphia: W. B. Saunders. 1896. Price, cloth, \$7.00; sheep, \$8.00; half-Morocco, \$8.00.

There is no manner of doubt whatever that therapeutics has been a much-neglected branch of medicine, and has been less understood by the great mass of the medical profession than any other branch. A good deal of this apparent neglect has laid in the circumstance that no work of an adequate nature exclusively devoted to the subject has appeared in the English language. All those which have appeared are largely taken up with *materia medica*. In other words, the forms and modifications of drugs and remedial measures have been taken up in detail, to the detriment of their various modes of action under varying circumstances and conditions. For this and similar urgent reasons a work which deals with the clinical and bedside applications of remedies in therapeutics should certainly meet with the greatest favor. And when it is written in collaboration by a number of acknowledged authorities its value becomes such as to be beyond any light estimate.

Such is the work before us, and much more. It is not intended

to be a volume devoted to the practice of medicine, but it is rather a very full series of monographs detailing the proper medication which should be applied in certain morbid conditions of the human organism, and such as cannot be properly classified as surgical in so far as the remedial necessities are concerned. The authors who have contributed are forty-four in number, and are among the leading members of the profession. With the exception of two they are all Americans, and they certainly reflect credit upon this country. The article on "Malaria" is from the pen of A. Laveran, whose name was made famous by his discovery of the *plasmodium malarix*; "Leprosy and its Treatment" was written by the late Beaven Rake, of the Island of Trinidad, one of the foremost leprologists of the century, who was taken off so suddenly in the very middle of his life of usefulness but a few years since. Many names distinguished in American medicine adorn the pages of this work, and we only regret that we have not the space at our command to give even a fair résumé of one of the most valuable and useful treatises on the subject of applied therapeutics which it has been our good fortune to read.

Everything is modern. The very classification employed is based upon the latest pathological researches, and the conclusions in regard to the actions of remedies have been made to conform with the latest accounts and experiences of the most progressive writers and investigators the world over. The authors are, as a rule, all justly critical, and not only give the results attained in their hands, but those reported by others as well. In fact, the whole work is as free of dogmatical utterances as could well be demanded, whilst it still retains the well-digested results, carefully considered, of new authorities on the subjects which they consider. It is such a quality of text-book which wins the admiration and respect alike of the student who is serious in his endeavors to acquire valuable knowledge.

Among some of the most interesting topics which are not usually discussed in works of this character may be mentioned "Accidents Produced by Electricity," a most valuable contribution in view of the large number of such occurring since the use of that force has become so extensive. "Disorders of Sleep," "Diseases of the Brain," and "Diseases of the Mind," are among the noteworthy articles. The illustrations of the facial expression in different forms of mental trouble are especially excellent.

The book is gotten up uniform in style and binding with the other volumes in the American Text-Book Series, the quality of binding, illustrations and type-work being beyond criticism. Mr. Saunders is again to be congratulated upon the recent issue from his press. No intelligent physician or progressive student can afford to be without the "American Text-Book of Applied Therapeutics."

System of Diseases of the Eye. By American, British, Dutch, French, German, and Spanish authors. Edited by WM. F. NORRIS, A.M., M.D., and CHARLES S. OLIVER, A.M., M.D. Vol. I. Embryology, Anatomy, and Physiology of the Eye. Royal 8vo., pp. 670. With Twenty-Three Full-page Plates and Three Hundred and Sixty-Two Text Illustrations. [Philadelphia: J. B. Lippincott Company, 1897.

Our greatest desire in reading this volume was that we were capable of doing it full justice. It is one of a series of four volumes written by the highest authorities in ophthalmology in the world, selected from the leading men of all the civilized nations, and from this alone it may be judged as to what it is. The opening chapter is devoted to the development of the eye by Dr. John A. Ryder, who was known as a most competent teacher of comparative embryology, but who unfortunately succumbed to disease in the midst of the work which had made him honored in his chosen studies. The anatomy of the various components of the eye, including that of the intra-cranial portion of the visual apparatus, follow next, and the two hundred and fourteen pages devoted to this portion of the subject are not only of the highest interest and value, but positively fascinating to the student of the eye and its adnexa. A better chapter on this subject has never been written, and the four articles which compose it form an unapproachable monograph.

The Congenital Malformations and Abnormalities of the Eye forms a most interesting chapter, in which much valuable information is given and conditions of the highest interest described. The purely optical parts and functions of the eye take up the next three chapters, and include Dioptrics, the Perception of Light and Binocular Vision, all of these most important subjects, more especially connected with the physiology of the eye. Normal Color-Perception is a carefully prepared paper, whilst the concluding chapter on the Photo-Chemistry of the Retina is a more than unusually interesting article on a subject which, up to the present time, has been but little understood.

The mere recital of the contents of this first volume can give no adequate conception, not only of the manner in which the subjects are treated, but of the thoroughness of the writers and the high plane upon which their work is cast. No one, whether he be a specialist in ophthalmology or an intellectual general practitioner, could read this volume without knowing that master-minds, thoroughly conversant with their subject, had contributed the matter which fills the pages before us.

The series is one of which every American should feel proud, as it is an American publication. Not only this, but in the list of eminent contributors we note that there are the most noted Europeans, and yet in this gallery of celebrities the American appears in sufficient numbers to demonstrate the fact that, de-

spite false impressions to the contrary, we are able to hold our own with Europe, and that there are many capable minds in the department of medicine and its various branches in this country.

In the volume before us we have the latest and best work which has been done in ophthalmology, and we wait the appearance of the second volume with impatience. It is not a work intended for ophthalmologists alone, but the intention has been to furnish the general practitioner with a treatise which shall prove of the greatest use and highest interest as well. It is these members of the profession whom we would urge to buy the work. We know that every ophthalmologist will, more especially as it is handsomely gotten up and replete with most excellent and artistic plates and engravings.

The Practice of Medicine. By HORATIO C. WOOD, A.M., M.D., LL.D. (Yale), and REGINALD H. FITZ, A.M., M.D. Large 8vo., pp. 1088. [Philadelphia: J. B. Lippincott & Co. 1897.

This work, whose appearance was announced quite some time since, has fully realized the expectations which were entertained in regard to it. The authors are well known as writers, and have each made a number of valuable contributions to medical literature. The work before us is a good one in every respect, and is in addition a splendid example of collaboration in writing. It is only here and there that we find a paragraph signed by one of the individual writers, and it is necessary on account of a difference of opinion on a subject, which no discussion could induce the writers to agree upon. The reader is given the liberty of taking his choice on the various topics so presented; and this is as it should be, seeing that it does not limit him to a single idea in a moot subject.

The work is divided into six sections. Section I. is devoted to General Diseases, including acute and chronic poisoning. We are surprised that certain auto-intoxications, as pointed out by Bouchard, are not given among the cases of anemia. The entire section is a most thorough one, and the subjects are subdivided quite at length. It fills 377 pages, which demonstrates the thoroughness of the work. We are surprised that no mention is made of the poisoning due to iodide of potassium, a form which is very apt to occur in general practice, as far as we have been able to observe. Section II. is taken up with a consideration of Diseases of the Nervous System, and for this purpose a little over 250 pages is utilized. Organic diseases of the brain and its membranes and diseases of the medulla oblongata are considered in connection with the other nervous diseases, both organic and functional.

Section III., whilst not a very long one, deals with Diseases of the Circulatory System, a most important subject to the general

practitioner. The subject is placed before the reader in a very clear manner, and one easily understood. The Diseases of the Respiratory Apparatus, which are no less important, occupy but little more space. They are considered in Section IV., and a particularly interesting portion is that devoted to Diseases of the Mediastinum. In Section V. are considered the Diseases of the Digestive Apparatus and of the Peritoneum, a most important series of affections, requiring much discrimination and diagnostic acumen of a high order. The section opens with diseases of the mouth, pharynx and esophagus, and is followed by gastric, intestinal and visceral diseases, inclusive of the peritoneum. The work concludes with Diseases of the Urinary Apparatus, and a very full consideration is given to them. Section VI., which concludes this subject, contains fully 100 pages.

There are appended a formulary and temperature charts, which are given in the way of illustrations to students. A full index is appended, and it is very complete and full.

The entire book is one which is full without being prolix, and comprehensive, although it does not enter into details such as we find in special treatises devoted to special subjects. The subjects which have been considered are such as come up in daily practice, and which should come within the purview of the general practitioner. The reputations of the authors are such that their joint work needs no words of commendation.

A Text-Book of Materia Medica, Therapeutics and Pharmacology. By GEORGE FRANK BUTLER, Ph.G., M.D. Large 8vo., pp. 858. [Philadelphia: W. B. Saunders. 1896. Price, cloth, \$4.00; sheep, \$5.00, net.]

We are pleased to have seen this text-book, as it is constructed in a logical manner, and by one who is acquainted with his subject in a thorough manner. It is a relief indeed to note that a number of the older preparations, which were never or but rarely used have been discretely omitted by the author. He has also wisely abstained from entering into a consideration of the latest remedies which have been introduced, as they are still *sub judice*, and their therapeutic value not determined in a sufficiently exact and conclusive manner as to justify introducing any notice of them in a text-book and work of reference such as the one before us is intended to be.

The general plan of the work is arranged, as the author states it, upon the synthetic classification of drugs based upon therapeutic affinities. There is no doubt whatever that it is the best for the medical student, and offers superior advantages in connection with proper therapeutics. Pharmacy is fully considered, and wisely so, as there seems to exist much haziness in the minds of practitioners even regarding the forms of remedial agents, mixtures, and proportions, as well as the proper meth-

ods of making them and properly combining them. All of these points are clearly set forth by the author before he enters into a consideration of the subject proper. We notice one slight omission in considering bandages—no mention is made of the crinoline bandage, which is really one containing starch to make it harden.

Remedies are classified as being disease medicines, antiseptics, and symptom medicines. In the first class are included restoratives, digestives, acids, alkalies, bitters, etc., including the animal extracts used in organo-therapy and the specifics so much in favor in serum-therapy. In the third class we find included such remedies as hypnotics, narcotics, motor excitants and depressants, cardiac stimulants and sedatives, and the other remedies which properly enter under this head. An unclassified chapter on topical remedies is added, which is necessarily short, although rather full.

The plan which has been adopted is to consider a group of remedies so far as their pharmacology is concerned. After this the therapeutics of each member of the group is given, its incompatibles and antagonists, synergists, physiological action, unsound action, toxic effects, therapeutics, contra-indications, and administration, being given in manner both impressive and complete. Prescriptions and How to Write Them is a very valuable chapter. Sufficient instruction in Latin is introduced to enable the young physician to write a recipe that will not reflect any discredit upon him.

The book concludes with a well-compiled clinical index, and a very complete general index. We like the work not only for its thoroughness, but for the very systematic manner in which it has been written. As a reference book it is unequaled, and as a useful *materia medica* it will stand favorable comparison with the majority of those published up to the present time.

Over the Hookah. The Tales of a Talkative Doctor. By G. FRANK LYDSTON, M.D. 8 vo., pp. 618. Illustrated from the Author's Designs, by Mr. C. Everett Johnson. [Chicago: Fred. Klein Co., 32 Market Street. 1896. Price: cloth, gilt top, \$4.00; morocco, full gilt, \$5.00.]

The author has long been known, and has deservedly enjoyed the reputation of being the best *raconteur* of the profession in this country. We who have had the pleasure of listening to him on many a pleasant occasion hardly thought that he contemplated treating us to a permanent feast of his inimitable stories, and withal giving us so much that is new. We shall never forget Dr. Weymouth, the typical doctor, as he is yet to be found, not in numbers, but still scattered here and there, and who, we fear, is in danger of following the example of the dodo and remain nothing more than a pleasant reminiscence of what once was.

Lydston's book is a hit—a palpable hit. As a piece of literary work it will compare favorably with the productions of authors who have made pretensions in the world of literature. As a combination of pathos, humor, character sketches and dialect stories, it occupies a foremost place among the later productions of this decade. It is, in fact, a unique production of the most fascinating character, more especially for the physician. We began to read it, and we found that we could not lay it aside with any degree of comfort. We had to take it up again at the first opportunity, and felt a lingering regret when the last page had been reached. But the consolation still remains that it can be read again, and it is a volume which will easily bear several readings.

The philosophy of the old doctor has much of truth and observation blended, and the description of several kinds of doctors is a piece of literature which is destined to be crystalized in the annals of medicine. "Old Abe," as a musical critic, is a delicious morsel of negro dialect; but, perhaps, no more excellent than that finished Irish dialect account giving Larry's contribution to the history of Ireland.

In fact there is not a story from the beginning of the book to its end that is not a gem. The illustrations are numerous and of superior execution, whilst the conception of each one, being the author's, is as bright and original as the text. Every physician should have this book handy to read, and if he cannot afford to buy it, let him drop a gentle hint to that effect to some admiring and generous patient, and he will surely get it.

Anatomical Atlas of Obstetric Diagnosis and Treatment.

By OSCAR SCHAEFFER, M.D. Small 8vo., pp. 234. With 145 Illustrations on 55 Plates. [New York: William Wood & Co. 1896. Price, \$15.00 for the set of five. Sold by subscription only.

This is the fourth number of this series, and it is certainly a companion work to the others, fully equal to them in thoroughness of detail and artistic excellence of plates. The latter alone are so clear and demonstrative that even a casual examination will easily demonstrate the great importance which morphological conditions have upon pregnancy and labor as well as their influence upon these conditions. The author has fully exemplified this in his text, which is not only clear and conclusive but demonstrative as well. It is not only in relation to normal pregnancy and labor that these applications have been made, but to the abnormal conditions which are found. The secondary pathological sequelæ of labor are not considered in this volume, but are taken up in the Atlas of Gynæcology by the same author, which is the fifth and concluding volume of the series.

The book is divided into nine parts. Part I. deals with the

Normal Anatomy of the Sexual Organs during Pregnancy, whilst Part II. is concerned with Pelvic Deformities and their Influence upon Pregnancy and Labor. This is certainly a most important portion of the book and one rich in plates illustrative of the conditions spoken of and demonstrated by the author. In Part III. we have presented to us a no less important subject in the Displacements, Tumors and Anomalies of Development of the Sexual Apparatus and their Influence upon Pregnancy and Labor. This is a most important subject as many an accoucheur knows, and which has caused many a sleepless night from a want of adequate knowledge in connection with it. In Part IV. are considered and figured not only interesting but rare forms of Rupture of the Uterus during Pregnancy and Labor and Lacerations of the Cervix. The illustrations are particularly good. The Abnormal Implantation of the Ovum, Extra-Uterine Pregnancy, and Placenta Previa are very carefully considered in Part V., and very fully illustrated, the text in connection with these subjects being unusually clear.

In Parts VI. and VII. are presented the Anatomy and Etiology of the Premature Expulsion of the Ovum and Abnormalities of Presentations of the State of the Funis and of the Membranes, and Cognate Subjects. A very practical as well as useful chapter is Part VIII., in which are considered the Disturbances of Labor caused by Abnormal Uterine Contractions and by General Diseases of the Mother. Part IX. concludes this valuable little atlas. It deals with Obstetric Therapeutics, both medicinal and surgical, including operative procedures of a major kind.

The entire work is one of a superior sort and of a high order of merit. It is eminently practical and will be found one of the best of Wood's Medical Hand Atlases. We await the appearance of the Atlas of Gynecology by Dr. Schäffer with impatience.

Practical Points in Nursing. For Nurses in Private Practice.

With an Appendix Containing Rules for Feeding the Sick; Recipes for Invalid Foods and Beverages; Weights and Measures; Dose List; and a Full Glossary of Medical Terms and Nursing Treatment. By EMILY A. STONEY. 8vo., pp. 456. Illustrated with 73 Engravings in the Text and 9 Colored and Half-Tone Plates. [Philadelphia: W. B. Saunders. 1896. Price, \$1.75 net.

We have seen a great many opportunities of examining various text-books on nursing, but these were all manuals to be used in training schools, which are always connected with some private or public hospital more or less fully equipped with all those things necessary to fully carry out the directions of the physician or surgeon. As soon as a nurse gets into private practice, however, her ingenuity and adaptation to her surroundings are often taxed to the utmost. She cannot find the apparatus and services to

which she has been accustomed and must frequently improvise them for the case in hand. It is with this very object in view that the volume before us has been written, and as a general guide in this respect it certainly is unsurpassed by any book on nursing of its size which we have examined.

The nursing to be pursued in certain classes of cases as well as in special medical cases is fully set forth in a very clear manner. The nursing of sick children is thoroughly set forth, as well as the proper management of children, which is in itself quite an art, attained with difficulty by some and never by others. A proper study of the precepts laid down in the work before us, however, will do much to make the way smooth and lighten the labors of the nurse. The duties of the nurse in general surgical cases, both of the emergency and other classes, are clearly set forth and the methods of improvising operating tables, etc., are dwelt upon with sufficient clearness to permit of any one doing the proper thing at the proper time.

A chapter of value to the physician is that on accidents and emergencies and incidental poisoning. They are valuable because the patient is thereby enabled to be put in a better condition for the employment of skilled services and thus many possible bad conditions avoided at the very beginning of a case. The nurse is told just enough to be of assistance to the physician and not enough to make her believe that she is competent to supersede him. A very useful part is that devoted to a short consideration of the more important points connected with physiology and anatomy. There is no design here to make nurses experts in these branches, but, as is very correctly maintained, they should have a general idea of these matters.

The appendix which concludes the book deals mainly with dietetics, a most valuable adjunct to the medical methods employed by the physician. A number of other valuable hints are given, and the text is closed by a glossary of medical terms sufficiently full and accurate for a nurse.

A Manual of Obstetrics. By W. A. NORMAN DORLAND, A.M., M.D. 8vo., pp. 760. With 163 Illustrations in the Text and 6 Full-Page Plates. New Aid Series of Manuals. [Philadelphia: W. B. Saunders. 1896. Price, \$2.50 net.

Like all the books in Saunders' New Aid Series of Manuals, the one before us is not only excellent but well written and handsomely illustrated. The author divides his subject into two parts, and advisedly so. The first is devoted to physiologic obstetrics, which, beyond all doubt, constitutes by far the major portion of the cases encountered in practice, both private and hospital. A very clear and simple *exposé* of the entire subject is furnished, and the various points spoken of are so aptly and well illustrated that the student can experience no difficulty whatever

in not only understanding the mechanism of labor and the various methods to be used in a case of normal labor, but he is also thoroughly instructed in the methods of properly recognizing a presentation. All the cognate subjects associated with physiologic obstetrics are taken into consideration, but all of this occupies no more than 215 pages, the remainder of the book being devoted to the more difficult and intricate subject of the abnormal conditions which cause labors to deviate from the normal.

In the second part is considered the subject of pathologic obstetrics, which certainly cannot be adequately appreciated until the physiologic is thoroughly understood. The author has written a very clear and forcible monograph on a subject which is to-day engaging the best talent of the most celebrated accoucheurs. This part begins with the diseases of the ovum and the fetal appendages; considering next in order the pathologic conditions of the fetus, including malformations and diseases; the pathology of pregnancy as brought about by local and general diseases; dystoria, both fetal and maternal, including all their varieties; the pathology of the puerperium; and, finally, the pathology of the new-born.

From this short summary it will be seen that although the book is not a large one it is very comprehensive in its scope. It will bear favorable comparison with obstetric manuals of its size, and it is superior to the majority in thoroughness of detail as well as completeness in the way of illustrations.

We have no doubt that the publisher will find a large and ready sale for this number of his Aid Manuals, and it will recommend itself wherever seen.

Essentials of Physical Diagnosis of the Thorax. By ARTHUR M. CORWIN, A. M., M. D. 12mo., pp. 199. Second Edition, Revised and Enlarged. [Philadelphia: W. B. Saunders. 1896. Price, \$1.25 net.

This is the second edition of the author's "Outlines of Physical Diagnosis of the Thorax," which met with such a large and ready sale. The author is the well-known inventor of the double and the multiplex binaural stethoscope, whereby two or several may simultaneously practice auscultation on the same subject. The little book before us is a very complete syllabus and useful reminder which may be conveniently carried about in the pocket, so as to permit easy and rapid reference. For the use of students in physical diagnosis it is unexcelled, and as a help in consulting larger works it will be found most valuable. It is also adapted to the needs of him who is learning auscultation, as he can rapidly refer to the essential points and be thereby enabled to formulate a diagnosis with greater rapidity and exactness. We heartily recommend this book to all students and to those practitioners who may have grown rusty.

Literary Notes.

Books Received.—The following books have been received during the past month and are reviewed in the present number of the JOURNAL:

An American Text-Book of Physiology, by Henry P. Bowditch, M.D., John G. Curtis, M.D., Henry H. Donaldson, Ph.D., W. H. Howell, Ph.D., M.D., Frederic S. Lee, Ph.D., Warren P. Lombard, M.D., Graham Lusk, Ph.D., W. T. Porter, M.D., Edward T. Reichert, M.D., and Henry Sewall, Ph.D., M.D. Edited by William H. Howell, Ph.D., M.D. Imperial 8vo., pp. 1052. Fully Illustrated. [Philadelphia: W. B. Saunders. 1896. Price, cloth, \$6.00; sheep, \$7.00; half morocco, \$7.00.

System of Diseases of the Eye, by American, British, Dutch, French, German and Spanish Authors. Edited by William F. Norris, A.M., M.D., and Charles A. Oliver, A.M., M.D. Vol. 1. Embryology, Anatomy and Physiology of the Eye. Royal 8vo., pp. 670. With twenty-three full-page plates and three hundred and sixty-two Text Illustrations. [Philadelphia: J. B. Lippincott Co. 1897.

An American Text-Book of Applied Therapeutics for the Use of Practitioners and Students. Edited by J. C. Wilson, M.D., assisted by Augustus A. Eshner, M.D. Imperial 8vo., pp. 1326. Philadelphia: W. B. Saunders. 1896. Price, cloth, \$7.00; sheep, \$8.00; half morocco, \$8.00.

The Practice of Medicine, by Horatio C. Wood, A.M., M.D., LL.D. (Yale), and Reginald H. Fitz, A.M., M.D. Large 8vo., pp. 1088. [Philadelphia: J. B. Lippincott Co. 1897.

A Text-Book of Materia Medica, Therapeutics and Pharmacology, by George Frank Butler, Ph.G., M.D. Large 8vo., pp. 858. [Philadelphia: W. B. Saunders. 1896. Price, cloth, \$4.00; sheep, \$5.00, net.

Over the Hookah: The Tales of a Talkative Doctor, by G. Frank Lydston, M.D. 8vo. pp. 618. Illustrated from the Author's Designs, by Mr. C. Everett Johnson. [Chicago: Fred. Klein Co., 32 Market Street. 1896. Price, cloth, gilt top, \$4.00; morocco, full gilt, \$5.00.

Anatomical Atlas of Obstetric Diagnosis and Treatment, by Oscar Schaeffer, M.D. Small 8vo., pp. 234. With 145 illustrations on 56 plates. [New York: William Wood & Co. 1896. Price, \$15.00 for the set of five. Sold by subscription only.

Practical Points in Nursing for Nurses in Private Practice. With an Appendix containing Rules for Feeding the Sick: Recipes for Invalid Foods and Beverages: Weights and Measures: Dose List: and a full Glossary of Medical Terms and Nursing Treatment, by Emily A. M. Stoney. 8vo., pp. 456. Illustrated

with 73 engravings in the text and 9 colored and half-tone plates. [Philadelphia: W. B. Saunders. 1896. Price, \$1.75, net.

A Manual of Obstetrics, by W. A. Newman Dorland, A.M., M.D. 8vo., pp. 760. With 163 illustrations in the text and 6 full-page plates. [Philadelphia: W. B. Saunders. 1896. Price, \$2.50, net.

Essentials of Physical Diagnosis of the Thorax, by Arthur M. Corwin, A.M., M.D. 12mo., pp. 199. Second edition, revised and enlarged. [Philadelphia: W. B. Saunders. 1896. Price, \$1.25, net.

The Cincinnati Medical Journal has ceased publication. No reason is assigned for this.

A Compliment to the JOURNAL is published in that fearless critic and valuable journal, the *Indiana Medical Journal*, as follows:

The ST. LOUIS MEDICAL AND SURGICAL JOURNAL, edited and owned by Drs. Frank L. James, A. H. Ohmann-Dumesnil and Frank M. Rumbold, monthly, \$1.00 per annum, pages 64, is one of the most satisfactory journals of general medicine and surgery we receive. The JOURNAL is deformed by the insertion of red advertising pages; otherwise the medical and business interests are separate. The publication of the Periscope of Antenatal Pathology, by Dr. Ballantyne of Edinburgh, is valuable. The JOURNAL is well advanced in years and dignity; the excellent September issue is Vol. LXXI., Number 3; whole number 669. We see no use of making poor journals; good ones cost little more and pay better.

The Charlotte Medical Journal is only five years old, but it has forged to the front in a truly remarkable manner. Drs. Register and Montgomery have made it a complete success, and it occupies to-day an enviable position among the better medical journals of this country which appear monthly.

The Index-Catalogue of the Library of the Surgeon-General's Office, U. S. A., is now in its second series. Vol. I., A-Azzari, includes 6,346 author-titles, representing 6127 volumes and 6327 pamphlets. It also contains 7000 subject-titles of separate books and pamphlets and 30,384 titles of articles in periodicals.

The Non-Heridity of Inebriety is the title of a 12mo. of 359 pages written by Leslie E. Keeley, M.D., LL.D., in which he speaks on a number of subjects before considering inebriety—alcohol as a food, going on to the various factors concerned in the production, treatment, and cure of inebriety. According to this author inebriety is a disease and not a habit nor a transmitted trouble. It is not hereditary but acquired. Those interested in the book may obtain it of Scott, Foresman & Co., Chicago.

Sojourn Among the Oculists of Europe, by Flavel B. Tiffany, is a little book of 125 pages. It is, as the title suggests, a visit among some of the principal oculists of Europe, embracing Scotland, England, Ireland, Holland, France, Denmark, Germany, Bohemia and Austria.

The object of the "Sojourn," as is said in the preface, is to conserve in book form the portraits of those noted men of ophthalmology and otology (given by their courteous permission), and to render the album as it were a sort of a guide book to the student going to Europe for the purpose of prosecuting the studies pertaining to diseases of the eye, ear, nose and throat. The book is printed on enameled paper and is handsomely bound in cloth and in paper. Price in cloth is \$1.50; in paper, \$1.00. For sale by the author, Flavel B. Tiffany, M.D., 2457 Troost Avenue, Kansas City, Mo.

Transactions of the South Carolina Medical Association for 1896 have reached us. These form an 8vo. volume of 136 pages, in which a number of short interesting papers appear. Whilst the association has a large membership, none are afflicted with the *cacoethes scribendi*.

Feeding in Early Infancy is a neatly bound reprint of an article read by Dr. Arthur V. Meigs and published by Mr. W. B. Saunders, of Philadelphia, at the price of twenty-five cents. We read this paper with pleasure and heartily concur with the author, as we know that his views are correct. Every mother, nurse, and physician should obtain a copy and follow the precepts laid down.

Visiting Lists have been making their appearance, and now is the time for the physician to provide himself with one for the year 1897.

The Physician's Visiting List, published by P. Blakiston, Son & Co., of Philadelphia, is now in its forty-sixth year of publication, which is certainly sufficient as a testimonial to the favor with which it has been received and of its value for the purposes designed. A number of styles are printed, from a size for 25 patients a day or week, at \$1.00, up to 100 patients a day or week, at \$2.25. In addition, a perpetual and a monthly edition is published. All forms are simple in construction and compact in form.

The Medical Record Visiting List or Physician's Diary has been revised for 1897. It is published by Wm Wood & Co., of New York, who have produced a very handsome pocket-list in this their latest issue. A large amount of information is incorporated in this visiting list, and it is information of a most useful character. The most important change made is in the list of remedies and their maximum doses, a point which will be appreciated by all physicians.

The **Scottish Medical and Surgical Journal** is to appear in January next. Its office of publication will be located in Edinburgh, and it is to be owned and directed by Scottish medical men who occupy the highest positions in their country. The main object of its promoters is the publication of a thoroughly representative Scotch journal; and from the list of promoters and supporters given in the prospectus it would be difficult to find a better body of men. This *Journal* will be issued monthly, and will consist of about 96 pages octavo. It will be thoroughly representative of all departments of medicine and surgery, and we are already impatient to see the initial number of the *Journal*, which we know will be among the very best of its class. The editor is William Russell, M.D., F.R.C.P.Ed., a gentleman who has thoroughly proven his ability to assume the editorial management of a medical publication.

Change of Name.—The editors of *Mathews' Medical Quarterly* announce that with the January issue of that publication its name will be changed to *Mathews' Quarterly Journal of Rectal and Gastro-Intestinal Diseases*. This is a change which has been deemed necessary for some time, as it is essential that the title of a medical journal should convey to the reader an idea of its contents, and this has not been the case with its name from the beginning.

There will be no change in the policy of the journal in the least. As it will continue to be the only English publication devoted to diseases and surgery of the rectum and gastro-intestinal tract, the articles which will appear in it will be limited to these subjects. The journal will continue to be edited by Drs. J. M. Mathews and Henry E. Tuley, and published in Louisville, Ky.

Dr. Fort Mobbed.—Rio de Janeiro was recently the scene of a manifestation against Dr. Fort, who was revisiting the city in which he had successfully practiced for some years after graduating in Paris (*Med. Record*). Upon returning to France he had published his impressions of Brazilians and had commented adversely upon their system of medical instruction and upon the zeal with which the students worked. To show the French physician that they still possessed certain kinds of zeal at least, some thousand of them visited the hotel at which he was stopping, with the avowed purpose of lynching this calumniator of their fair land. Not succeeding in laying violent hands upon the object of their ire, an effigy was procured and a funeral procession organized, with catafalque, burning tapers, funeral dirges, and terminating in a cremation upon a public square. We shall keep an eye upon French journals to see what Dr. Fort will have to say upon his return this time about Brazilian zeal.

Society Proceedings.

CINCINNATI OBSTETRICAL SOCIETY.

PRESENTATION OF SPECIMENS.

Dr. W. D. Porter.—I will make this report as brief as possible. The first specimen is a uterus that I removed per vaginam at Christ Hospital two weeks ago yesterday. The patient is forty-six years of age; has had nine children, the youngest four years of age. She has been in good health until three months ago. About that time she was taken with a rather profuse uterine hemorrhage, occurring about the middle of the intermenstrual period. Dr. Edmund Shields, the family physician, called to see her, and after treating her medicinally one or two days asked me to see her in consultation. She was bleeding so profusely on that evening that we thought best to pack the vagina. The next morning we administered ether, curetted the uterus, and removed a ragged, rather hard piece of tissue, as large as a filbert. The specimen shows the point from which that piece of tissue was removed, on the posterior wall and a little to the right side. It would have been easy to have perforated the wall of the uterus at this point. The specimen has been examined by Mr. Berry, and unmistakable evidence of cancer found in every section. I have a number of slides prepared, and would be glad to have the members of the society look at them after we adjourn. The patient was advised to have the uterus removed, and after considering it for eight or ten weeks decided to have it done. The operation was done two weeks ago, and I think I could let her get safely up at this time, but will probably keep her in bed a week longer or more.

Dr. Edwin Ricketts.—Did you use clamps or ligatures?

Dr. Porter.—Ligatures were used.

The next specimen is a case of extra-uterine pregnancy. The patient, aged thirty-four years, has had four children, the youngest being about eight years of age. Three years ago she had a miscarriage at about the eighth month, and the fetus had probably been dead a week or more. She menstruated last on the 6th of February. In March she did not menstruate. She suspected she was pregnant, but had no bad symptoms until the 21st of March. At that time she was taken with a sudden and severe pain in the abdomen, and was confined to bed for several

hours. About the time she began to think of sending for a physician the pain subsided and she did not send. Two days later she had another attack of pain, but not so severe. She then went five days, to the 28th of March, when she had another severe attack in the night, which lasted several hours. On the 30th she had a still more severe attack, and I was sent for. I saw her late in the evening. There was profound shock. She complained of severe pain, the extremities were cold, the face was cold, the pulse was very fast and thready, and I felt sure she would not live long. I gave her a hypodermic injection of morphine, and by morning she had rallied and was fairly comfortable. She was taken next day to the Good Samaritan Hospital. Two days after going to the hospital she passed some little decidua masses. The diagnosis from the history alone was unavoidable. For years she had not missed a menstrual period until the one in March, the attacks of pain and the shock were characteristic, and finally the expulsion of decidua masses was almost unnecessary confirmation. The physical examination did not reveal much, except the uterus seemed rather fixed and there was a great deal of tenderness on the right side. The operation was done on the 4th of April.

When the abdominal cavity was opened it was found filled with blood, mostly of a light chocolate color, rather thicker than normal. All through the abdominal cavity there were black clots, showing there had been an early hemorrhage and one later. Rupture of right tube had occurred and it was adherent to the omentum.

The patient did very well for twenty-four hours. After that period she began to develop a rapid pulse, and the temperature went up. The temperature, which had been 101° for twenty-four hours after the operation, went up to 102.5° about thirty hours after the operation, and the pulse became very rapid, at one time being 156. She had lost control of the sphincters, and there were involuntary discharges from the rectum and bladder. As she had been purged pretty freely, and as there was no tympanitis, one-fourth of a grain of morphine was given hypodermically. By the next morning these symptoms had cleared up and her pulse had come down to 120, and she has since progressed without trouble and is making a good recovery.

Dr. Chas. L. Bonifield.—On examination per vaginam I found the uterus to the left side of the pelvis and high up, which

made me think the growth was inter-ligamentous. The fluctuation was so distinct, and the tumor so uniform, I believed I had a plain ovarian cyst. Upon opening the abdomen I found a cyst that presented nothing abnormal in the line of incision, and evacuated a fluid of a dark coffee-ground color. I then found the growth was inter-ligamentous, and I had much trouble in dissecting the broad ligament from it. On examination of the tumor I found numerous masses of sebaceous matter, which looked like the case Mundé has reported. There are several pieces of bone and some eight or ten teeth, some of them incisors and some bicuspid. Also, in the lower part of the cyst, there was a fresh blood-clot and an organized blood-clot, showing that bleeding had evidently taken place comparatively recently. So the tumor is a mixed one, dermoid in part and an ovarian cyst in part. There was an unusual amount of stitching to be done, and at the best we could do there was a large amount of raw surface on the posterior part of the uterus. A drainage-tube was left in twelve hours, but there was only a little drainage, about a drachm every hour. She has had no trouble, and is getting along very nicely indeed.

Melange.

St. Louis School of Clinical Medicine.—We understand that a number of prominent St. Louis physicians and surgeons will shortly open a post-graduate course for physicians who are desirous of becoming thorough clinicians and operators. It will be remembered by our readers that the first post-graduate school in this country was the College for Medical Practitioners, of St. Louis. This was a great success; but, for some unknown reason, after several successful sessions it was discontinued. The present school of clinical medicine proposes to give practitioners a most thorough and elaborate course of clinical teaching and demonstrations. Considering the fact that each member of the corps of teachers possesses a large clinic and is connected with a number of hospitals, besides enjoying a large private practice, it can be easily understood how a large amount of clinical material can be utilized in a very short space of time, and a thorough course given in comparatively a few weeks. By the beginning of the new year an announcement will be made, and those physicians who are desirous of availing themselves of the superior advantages offered by this school will be given an opportunity of doing so. Every one who will be connected with this school will be thoroughly competent and adequate to the work which it is proposed to do. In some future number of the JOURNAL we will give more details regarding this new St. Louis departure, which does not propose to present itself as the caudal appendage of any medical college.

Miscellaneous Notes.

A Case of Cerebro-Spinal Meningitis Complicating Gonorrhea Treated by Antikamnia.—The concluding remarks from the above article, by G. S. Leggatt, M.R.C.S., England, L.S.A., taken from *The Lancet* (London), are interesting from both therapeutic and physiological standpoints:

"*Remarks.*—1. This is a rare complication of gonorrhea, and, as far as I can find, is not mentioned in any of the books which refer to the subject; but bearing in mind the similitude of structure between the meninges and the joints there seems no reason why they should not be occasionally attacked in a manner similar to the latter.

2. "Antikamnia is a remedy said to possess analgesic, antipyretic and anodyne properties. Its dose is three to ten grains, and it will be observed that the doses I gave were large ones; but the symptoms were extremely urgent, and it is interesting to note that there was no depression. During its exhibition the pulse improved in force, and the administration of the drug reduced the temperature to normal, and seemed in this respect to be greatly superior to that of phenacetin.

3 "As to the diagnosis, it is difficult to know how the symptoms, which were of a most pronounced kind, could be accounted for on any other supposition than involvement of the fibrous textures of the spine and cranium. That the disease did not more definitely and more permanently attack the pia mater and arachnoid is probably due to the prompt administration of the Antikamnia and salicylate combined, which seemed to me to prevent the optic neuritis and other more serious consequences of an established meningitis."

Up-to-date Treatment for Epilepsy.—Hydrocyanate of Iron, Tilden, has been meeting with phenomenal success in combatting this dread disease. Epilepsy is an affection so very intractable, as a rule, that the ordinary remedies and methods fail to give even slightly satisfactory results; indeed, they often appear to hasten the very disturbances which they are intended to correct.

Many of the most eminent neurologists have abandoned the bromides, and now rely entirely upon the efficacy of the Hydrocyanate of Iron, Tilden. J. H. Dearborn, Beverly, Mass., writes: "I am using Hydrocyanate of Iron, Tilden, in a case of epilepsy that has baffled the skill of eminent physicians in London and the States with marked success. I can heartily recommend it."

Literature and Epitome of Cases in Practice will be furnished upon application to The Tilden Company, St. Louis, Mo., or New Lebanon, N. Y.

Papine in Dysmenorrhea.—Papine was used in following case: Miss L., age 21, dysmenorrhea; suffered each menstrual period; gave half teaspoonful doses every hour until relieved; thus far, three doses have given perfect relief. I have used it also in cases where Morphia had been used, and in every case was more than satisfied with the results; will continue to prescribe it in my practice.

Washington, D. C., Sept. 26th, 1896.

A. H. LEE, M.D.

Celerina in Cholera.—Joseph Wesley Malone, M.D., Blythe-dale, Pa., says: I am so well pleased with Celerina that I cannot refrain from citing several cases of interest. I prescribe it very frequently, and have never had it to fail yet. I used it in a case of chorea. The patient was a little girl, ten years old, suffering from an acute attack. The case had been given up by two physicians and was a very bad one. The usual remedies, Phosphorus, Arsenic, etc., had been used and had no great effect. I advised the attending physician, an old practitioner, and a gook one too, to try Celerina. He did not take much to the idea, but after urging him he consented, and the first dose gave relief. From that time, the child got better, and in about four weeks was cured. It acted like a charm, and the old physician, who had never used it, was so well pleased that I am sure he will try it again. I have prescribed it in nervous prostration, and have yet to find it to fail. It is pleasant to take, and produces no nauseating effects, as other remedies do when used for some time. I frequently prescribe it with Alteris Cordial, and it also goes well with Peacock's Bromides. I shall continue to prescribe it, and shall watch its merits closely.

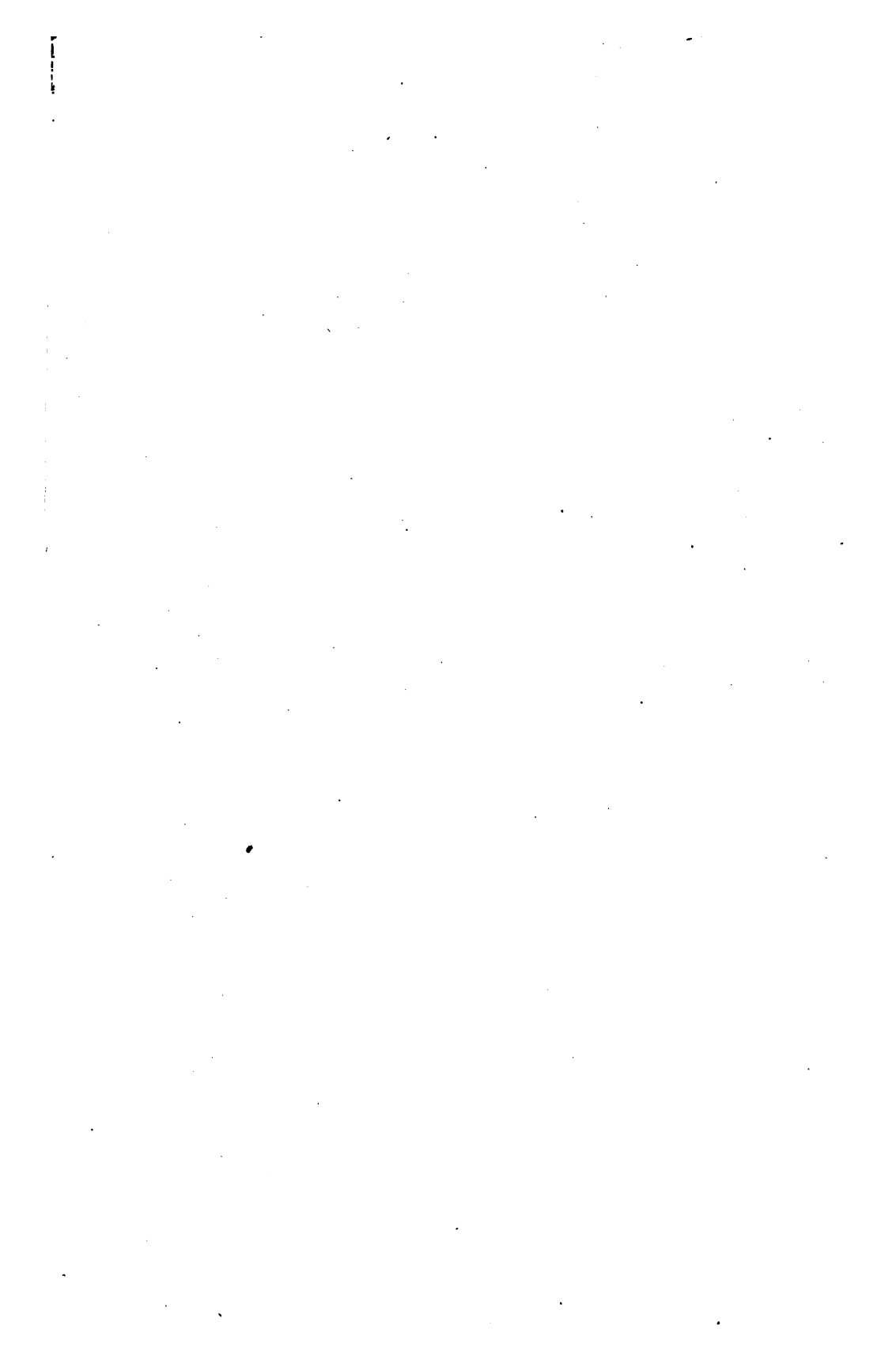
Iodia in Syphilis.—In my practice of eighteen years, I never found anything equal to your Iodia. I have prescribed it in very severe cases of syphilis, and have had the most gratifying results.

Webster, Mass., Sept. 26th, 1896.

L. J. PAPINEAU, M.D.

Pain and Rest in Diphtheria.—Rest is one of the sweetest words in our language, and in the management of no disease is this more true than in diphtheria. In keeping with the experience of Prof. T. E. Murrell, Ex-Vice-President of the American Medical Association, and Dr. Pollack, of St. Louis, who have found Antikamnia valuable as a reliever of the pain of nocturnal earache; it has also been found of great value as a sleep producer in these cases. Given in doses of two-and-a-half to five grains every two to four hours, there is no depression nor have other than satisfactory results obtained. Dr. Eggers, of Horton Place, St. Louis, reports in the treatment of an attack of diphtheria in a member of his own family, that, to obtund the pain consequent upon the injection of Antitoxine-serum, which ordinarily lasts from three to four hours, he exhibited antikamnia internally, securing relief in a few minutes. In the treatment of any neuroses of the larynx, coughs, bronchial affections, la grippe and its sequelæ, as well as chronic neuroses, clinical reports verify the value of Codeine in combination with Antikamnia, the therapeutical value of both being enhanced by combination.

Tongaline.—We take pleasure in calling attention to a very handsome pamphlet presenting some practical and interesting facts concerning Tongaline and the different troubles for which that remedy is intended, namely: rheumatism, neuralgia, nervous headache, la grippe, gout, sciatica and lumbago. The brochure is rendered most attractive by being embellished with original drawings and also handsome photogravures of a number of eminent members of the medical profession now deceased. It is the aim of the publishers to mail a copy to every physician in the country, but any who fail to receive such can obtain one by applying to the Mellier Drug Company, St. Louis.







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